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STABILIZATION AND ADJUSTMENT
POLICIES AND PROGRAMMES

COUNTRY STUDY
6
COLOMBIA

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PREFACE BY THE DIRECTOR

This monograph is part of a series being published by WIDER on the experience of developing countries with stabilization and adjustment programmes in the 1970s and 1980s. Each study analyzes the package of policies implemented by a specific country; its relations with the IMF and World Bank; the effects of the policies on production, employment, the balance of payments and social welfare; and what other policies might have been followed instead.

The intention of the series is to assist developing countries to devise adjustment policies that would, while accomplishing desirable adjustment and growth objectives, simultaneously remain politically viable in the particular country settings studied.

For this purpose it was thought desirable to explore policy alternatives to the adjustment programmes being implemented. Built into the design of the series, therefore - and constituting indeed its special feature - is the requirement that each study include a 'counterfactual' exercise to illustrate the effects of alternative policies. Utilizing econometric models adapted or specifically developed for each country, the probable effects of alternative policy packages are estimated; the object was to see how far the balance-of-payments adjustment and growth goals of a particular programme might have been achieved at a possibly lower social cost with a different policy mix.

Each country study is written by an independent scholar and expert in the relevant country. First drafts of the studies in this series were discussed at the WIDER conference on stabilization and adjustment policies in developing countries which was held 19-22 August, 1986 in Helsinki. Each study has been reviewed by WIDER's research advisers for the project, Professors Gerry Helleiner and Lance Taylor, and revised substantively by the author as necessary; subsequent editing has been conducted under the overall supervision of Mr Robert Pringle, Senior Fellow, who serves also as editorial adviser on WIDER publications.

A companion volume by Professor Taylor summarizing the experience of the countries surveyed will draw broader implications for the theory and practice of stabilization and adjustment policies; this volume will be published by Oxford University Press. The individual country studies in this series will subsequently be grouped into separate volumes, also for eventual publication by Oxford University Press.

Lal Jayawardena
Director
March 1987

EXECUTIVE SUMMARY

Three major phases of economic policy can be distinguished between 1980 and 1985: from 1980 to 1982, when the government reacted to deteriorating external conditions (the debt crisis and world recession) by liberalizing imports, relaxing fiscal policy and tightening monetary policy - which increased the external deficit and caused a recession; secondly, a 'heterodox' phase in 1983-84 of which the central element was strong import controls, which curbed the deficit and boosted output, while monetary and fiscal policies remained passive; and finally an 'orthodox' phase, which placed the central emphasis on demand management, fiscal contraction and accelerated devaluation and liberalizing import liberalization. Simulations suggest that the heterodox phase of this programme was very effective in correcting both internal and external disequilibrium.

Following a radically different debt negotiating strategy from other Latin American countries, Colombia negotiated an agreement with the commercial banks on the basis of an IMF agreement to monitor its macro-economic programme. The international agencies also increased the effective supply of funds during the stabilization period, not only in the traditional form of project financing but also through balance of payments loans under several headings (export promotion and industrial recovery) and through a rollover mechanism managed by Banco de la Republica to accelerate dibursements.

The adjustment process was widely perceived to have been completed by the end of 1985, when the country's foreign exchange constraints were removed by the coffee bonanza, and the attention of economic analysts shifted to the more congenial task of analyzing the optimal use of the new foreign exchange generated.

INTRODUCTION

As elsewhere in the Third World, the Colombian economy experienced substantial changes in external conditions, significant income redistribution and the worst recession of the post-war period in the first half of the 1980s. Nonetheless, economic conditions were less critical than in most Latin American and African countries, reflecting the strong net debt position of Colombia at the outset of the crisis. External deterioration was acute in the early part of the decade, forcing the government to adopt a series of stabilization policies from 1983 to 1985. By the end of the latter year, it was widely believed in the international and domestic communities that the adjustment process had been completed. The coffee boom which started in late 1985 thus led to a significant recovery of economic activity. High coffee earnings in 1986 and the gestation of long-term coal and oil investments will allow the country to face the rest of the decade without foreign exchange bottlenecks. Attention of economic analysts has thus shifted to the optimal use of the new foreign exchange generated in the coffee and mineral sectors.

This paper analyzed the evolution of economic activity, macroeconomic policy and income distribution in the first half of the 1980s and the prospects for the rest of the decade. Part I describes some structural features of the Colombian economy. Part II presents the major phases of economic policy and activity from 1980 to 1985. Part III analyzes the impact of external shocks and adjustment policies on the 'real' variables of the economy. Finally, part IV presents the issues and prospects facing economic policy in the rest of the decade.

I. STRUCTURAL FEATURES OF THE COLOMBIAN ECONOMY

1. Economic structure and the 'social matrix'

Analyses of the Colombian economy have supported the idea of an asymmetric response of urban and rural sectors to domestic and foreign demand shocks (Sarmiento, 1984; Londono, 1985). In the urban sectors, Keynesian flexible supplies are the rule, based on excess capacities and significant unemployment and underemployment of labour during all or most of the business cycle. Mark-up pricing seems to have prevailed in the manufacturing sector in the past quarter century (Chica, 1983a; Ocampo et al., 1985b). Historical experience may reflect, however, the fact that the manufacturing sector never experienced any significant depression before the early 1980s. As we will see in part III, mark-ups seem to have fallen significantly in the face of demand contraction in the past years. In other urban sectors, mark-up variably has probably been more common in the past, although evidence on the matter is wanting. The significant quantity response of all urban sectors to the economic cycle indicates, however, that prices adjust only imperfectly to demand variations.

In the agricultural sector, on the contrary, supplies are given in the short term by past plantings. Within-the-year price elasticities are low (between 0.1 and 0.6, depending on the product). However, long run elasticities are high (0.8 to 2.4), suggesting that structural rigidities are not important (Junguito, 1980). However, part of the supply response of specific products is at the expense of other crops. Aggregate agricultural production is thus more inelastic to price incentives than individual supply responses indicate (Sarmiento, 1984, ch. IV).

Adjustment in the coffee market is achieved through the intervention of the National Coffee Fund, a public fund

managed by a powerful private organization, The National Federation of Coffee Growers. The Fund accommodates short term disparities between supplies and demands at the pre-established domestic price through changes in inventories. Although this mechanism has been designed to isolate domestic coffee prices from external fluctuations, this is achieved only imperfectly, as the bargaining muscle of the Federation is used to increase the real domestic price during the external price upswing, with the inevitable reduction during the downswing. Differences between external and domestic prices, in pesos, are accommodated by changes in the retention quota, an export tax (paid partly or completely in kind) earmarked to the Fund to finance its stabilizing operations. The use of general taxes for this purpose has been limited in the past, as coffee growers have been successful in preventing an increase of the ad-valorem export tax collected by the National government in the past two decades. The major mechanism used to reassign part of the coffee surpluses for general developmental purposes has thus been the investment of Fund resources in low-interest government bonds and specific investments in coffee regions' diversification and other programmes. Differential exchange rates have also been common in the past. Indeed, this was the most common mechanism used to tax the coffee sector up to 1967, when the ad-valorem export tax was created; a differential exchange certificate system was again used between 1977 and 1980.

In other agricultural activities, government market intervention is not well-developed. Price fluctuations are thus the adjustment mechanism for non-tradable agricultural products - foodstuffs in particular. For tradables - raw materials and some foodstuffs - marginal exports and imports tend to smooth out the effect of supply conditions on domestic prices. Arbitrage between the international and domestic markets is highly restricted, however, by government controls on export and import licenses.

In the mineral sector, supplies are determined by long-term investments. Foreign trade is, again, the most important equilibrating mechanism in the short-run, particularly for oil and derivatives. In the future, expectations on the evolution of world energy prices may lead to changes in capacity utilization, particularly in oil, which will thus operate as an additional adjustment variable. State companies are dominant in oil and coal, in partnership with foreign multinationals since the mid 1970s. In some important mineral sectors - gold in particular - there is evidence, however, of significant short-term responses to price incentives.

Different adjustment mechanisms lead to a division of the economy in six major sectors, as shown in Table 1. The 'urban goods' comprise the Keynesian fix-price part of the economy. Primary production is divided in four categories: coffee, raw materials, foodstuffs and minerals. Urban processing is added to the corresponding primary activities - except, of course, in raw materials. Finally, a policy-determined government services sector is included. According to standard national accounting practices, this sector includes only public administration activities, valued by their direct labour cost plus indirect taxes (all purchases of goods and services made by the public administration are considered government final consumption and hence taken as part of final demands of the other sectors).

Although a similar break-up of employment is not available, it must be pointed out that it would probably differ only slightly from the composition of value added. This reflects the low average productivity differentials between urban and rural activities in Colombia (see, for example, Bourguignon, 1986). However, as in all LDCs, high and low productivity activities coexist in different rural and urban sectors. It must also be pointed out that government employment is low in Colombia by international

standards (Echeverria, 1985). So, labour surpluses in the urban sector are mainly concentrated in private activities (Misión de Empleo, 1986).

Table 1 also gives a detailed account of the distribution of the value of gross production in each sector into six major 'social classes' - rural and urban workers, bureaucrats, peasants, rural rentiers and capitalists, indirect taxes and imported inputs at the outset of the 1980s. It is worth noticing that this classification is somewhat arbitrary, especially with regards to the working classes. Thus bureaucrats is just a convenient label to refer to all types of public sector employees, including unskilled labour who should be better classified as urban workers. In the same way, urban workers comprise all those receiving labour earnings from market-oriented production units (including all state enterprises), although some of such 'workers' would better qualify as 'bureaucrats'. The corresponding shares of these social classes include both direct and indirect participation of different types of income, as calculated by standard input-output mathematical procedures.

Due to the diversity of production conditions, social groups shares differ widely across sectors. Thus, while in the foodstuffs and raw material producing sectors, rural rentiers and capitalists have the largest shares in gross production, in the coffee sector most income accrues to the public sector (through indirect taxes, including the retention quotas of the National Coffee Fund) and rural workers. The large relative share of all types of working classes in coffee production is in sharp contrast with the participation of rentiers and capitalists in other agricultural activities. This is due to technological and land-distributional reasons: while small and medium-sized farms ran by their owners and families are typical of the coffee sector, mechanized production in large units is characteristic of the raw materials and even the foodstuffs'

sectors (particularly cattle). However, some specific foodstuffs are produced by peasants in relatively small, non-mechanized farms. In mining and the urban sectors, workers and capitalists receive approximately 80 per cent of total value of production, with the remaining 20 per cent accruing to the government and import demand.

The final distribution of income that comes out of this 'social matrix' for 1980 favours capitalists and urban workers, who receive 34 per cent and 26 per cent of GDP, respectively. Rural rentiers receive 15 per cent. The smaller shares go to bureaucrats, rural workers and rentiers. This ordering is not affected when direct tax payments are taken into account, as the implicit taxation rates for all groups are very moderate (7 per cent for capitalists, 2.3 per cent for urban workers and bureaucrats and almost negligible for other groups). It is not possible to calculate per-capita income differentials between (and much less within) all these groups. However, among the working classes, the bureaucrats are on the top, with a per-capita income twice as large as that of urban workers and three times that of rural workers (Londono, 1985). These differentials largely reflect the educational levels of the labour force - highest for bureaucrats and lowest for agricultural workers. Moreover, they have been subject to a significant levelling out since the late 1960s and early 1970s, reflecting a reduction of rural labour surpluses and increases in the educational level of the labour force, particularly in the urban areas (Misión de Empleo, 1986; Bourguignon, 1985; Urrutia, 1984).

The distinction between fix and flex prices is also useful to differentiate the adjustment of different forms of labour income to the business and inflation cycles. In the rural sector, all sources of labour income are flexible and seem to have been particularly sensitive to domestic coffee prices, at least in the past decade. Although minimum wages have been decreed for rural workers since 1950, their

ability to regulate labour income seems to be minimal, as the government has no real mechanism to make them effective. In fact in the early 1980s, while minimum real rural wages rose, effective wages fell (Coyuntura Económica, December 1985; Misión de Empleo, 1986).

In the 'formal' urban labour market, which comprises some 30 per cent of the total labour force, wages are annually re-established on the basis of past inflation, with some sensitivity to overall labour market conditions - as reflected, for example, in the unemployment rate - and a long term annual real increase - 2 to 3 per cent - associated with the accumulation of human capital and other sources of productivity growth. Part of the adjustment process operates through collective bargaining, but it comprises sectors in which labour unions do not participate in the process. In fact, unionization in Colombia is low and falling in absolute terms - about 9 per cent of the labour force at present. The reference period for inflation adjustment seems to be rather long - two and half to three years, according to econometric estimates - probably due to the indirect influence of collective bargaining in large enterprises, which is usually done on a two-year basis. Besides, the relative stability and moderate level of inflation (at least by Latin American standards) has helped to maintain the length of the reference period. In the past few years, in the face of unstable food prices, this practice has led to significant short-term increases and decreases of real wages (Misión de Empleo, 1986; Coyuntura Económica, December 1985; Ocampo et al., 1985b; Reyes, 1985; Sarmiento, 1984, ch. 1). Whether these recent fluctuations have led to a shortening of the adjustment lag between wages and inflation is still unknown.

Minimum urban wages do not have a large influence on wage settlements in the public sector and in large corporations (Misión de Empleo, 1986). In 'formal' construction, trade and service activities, minimal wages

are effective. However, there is evidence of widespread violation of minimum wages and other labour regulations by small 'informal' firms (Ayala, 1981). In these companies and, more strongly, in self-employment activities, labour income is highly flexible (Misión de Empleo, 1986). It must be pointed out that, due to statistical difficulties, the self-employed are included as part of the 'capitalists' in Table 1. They comprise, however, a small share of the income of that class (see Table 8 below).

Changes in income distribution have significant effects on economic activity in Colombia. Cross-section analyses based on household surveys indicate that marginal savings rates for rural rentiers (0.35) and urban capitalists (0.15) are higher than those of rural and urban wage earners (0.08 and 0.02) and peasants (0.03). Thus, a redistribution of income from the latter to the former, has an unfavourable effect on domestic economic activity. Due to this distribution effect and the low price elasticity of food demand, a reduction of food production has a short-term contractionary effect, while the opposite is true of a favourable agricultural shock (Londono, 1985). Time series analyses have confirmed that savings rates are higher for the 'urban surplus' than for wage earners. Thus, rising urban mark-up have a contractionary short-term effect on domestic economic activity and falling mark-ups an expansionary effect. Finally, government savings are high but unstable. Marginal savings out of higher taxes are close to 100 per cent, while falling taxes lead to reduction of current expenditure and thus to a less than full impact on government savings. The effect on aggregate savings depend, of course, on the incidence of taxation. Time series analyses indicate that a rising tax share in GDP has been associated with a falling wage share. Thus, increased tax rates have resulted in the past in higher overall savings ratios. This may or may not have a contractionary effect, as there is an association between government savings and investment. Thus, under certain conditions, higher taxes may

result in a recomposition of final demand - higher government and lower private expenditure - rather than in a contraction of economic activity (Ocampo, et al., 1985a; Cárdenas and Ocampo, 1985).

2. Macroeconomic management

The structure of foreign trade is largely complementary with domestic production (Ocampo, 1982). It is also the most important sphere of government intervention, which includes exchange controls since 1931, a crawling peg exchange rate system since 1967 and import substitution and export promotion policies. In the past four decades, imports have been basically made up of non-competitive intermediate and capital goods. Even at the time of harsh direct controls and record tariffs, quasi-rents associated with protection were low in Colombia (Diaz-Alejandro, 1976; Hutchenson, 1973). The share of industrial production in GDP is 'normal' by international standards. However, the manufacturing sector is characterized by the overexpansion of industries in the first stages of import substitution and underdevelopment of 'late' industries, particularly metals and machinery (Echavarria et al., 1983; Perry, 1979; Syrquin, 1986). A moderate import liberalization process started in the early 1970s, both in the granting of import licenses and tariff levels. Liberalization accelerated during the Turbay Administration - 1978-82 - as we will see below. Together with the effect of the real appreciation of the peso after 1977 and the increasing competition of illegal imports, it led to significant slowdown of industrial growth since the mid-1970s and a contraction of production between 1979 and 1982 (Chica, 1983b; Echavarria, et al., 1983; Kalmanovitz, 1984).

In the export sector, the government is very active in the regulation of coffee exports. The National Coffee Fund is not only a stabilizing Fund, as we saw above, but also the major exporter of Colombian coffee (60 per cent of total

exports in the last few years). A myriad of mechanisms - the stabilizing instruments already mentioned, a minimum reimbursement price, the granting of export permits and the annual contracts signed by the Federation with all buyers of Colombian coffee abroad - are used to regulate the internal and export markets (Fedesarrollo, 1978; Leibovich and Ocampo, 1985).

Export diversification policies originated in 1948, when the first preferential exchange rate was granted to 'minor exports'. They became more conscious in the late 1950s and early 1960s, when the drawback mechanism was designed, tax incentives were granted and the first subsidized credit funds for exports were created. All these mechanisms were regularized in 1967, with the creation of the tax certificates for minor exports, the Export Promotion Fund (PROEXPO) and the redesign of the drawback mechanism. Since then, the different instruments have been alternatively emphasized - the tax certificates up to 1974 and again since 1982, PROEXPO in the intermediate period and the drawback system since mid-1985. Price incentives, together with booming world markets, contributed to significant export diversification in the 1960s and early 1970s, led by agricultural products and later by manufacturing exports; prior to 1967, instability of incentives slowed down the process. However, even at its peak, coffee continued to represent close to 50 per cent of total exports of goods. After 1974, reduction of export subsidies, first, and revaluation from 1977 to 1982, also accounted for the interruption of export diversification. Indeed, booming Venezuelan markets helped to support minor exports in the face of falling sales to other regions (Diaz-Aljandro, 1976; Lora, 1985; Echavarria, 1982; Villar, 1984).

Overall, there has been a long-run decline in the share of exports and imports in GDP in the post-war period. The falling share of exports has been fairly constant, even during the years of export diversification. Thus, export

coefficients (at constant 1970 prices) fell from around 17 per cent in the fifties to 15.6 per cent in 1965, and to 13.7 per cent in 1980. The slow dynamism of the export quantum has actually made Colombia more dependent of fluctuations of world coffee than was true in the early part of the twentieth century, when the coffee volume was dynamic. Although the terms of trade have improved, the share of imports has also declined in the long-run, reflecting an income-elasticity of the demand for imports lower than 1 - 0.9 according to the best econometric estimates (Ocampo, et al., 1987; Villar, 1985b).

Large dependence of public investment on long-term external financing has been the result of close relations developed with international lending institutions, particularly the World Bank. This has had major effects on macroeconomic management. First, it has biased public investment to infrastructure and has increased the import-intensity of government expenditure. Secondly, it has developed a complex interaction between external financing and public investment policies, which has operated in many different ways in the past, depending on the particular policy interpretation of this link. Finally, it has made private capital flows a residual variable, which depends on foreign exchange reserves objectives and the net effect of current account and public long-term financing. Instruments affecting short-term capital flows - reserve requirements on foreign exchange liabilities of private banks and minimum of maximum payment periods for new imports - have been actively used to either promote or restrain the accumulation of foreign exchange reserves (Perry et al., 1981; Londono and Perry, 1985).

Persistent controls on private capital flows reflect both the attempt to isolate the domestic financial market from external events and the decision to reserve the domestic market to the private sector. With very few exceptions, firms are not allowed to possess

foreign-currency denominated assets, either domestically or abroad. All external transactions (whether associated to imports or exports of goods and services or not) are channelled through the Central Bank. Short-term external loans are restricted to commercial transactions. Long-term foreign debt contracting requires in turn prior licensing. Although loopholes in the exchange control system, particularly in services, are used to channel speculative capital flows (Correa, 1985), existing econometric evidence seems to indicate that controls are generally effective in isolating the domestic capital market (Fernández and Candelo, 1983).

Financial and monetary intervention has also been a major sphere of government intervention. A financial reform was undertaken from 1972 to 1974. In 1972, inflation-corrected assets were for the first time offered to the public, thus guaranteeing a positive real interest rate to depositors. In 1973, the 'Financial Intermediaries' - later called Commercial Financial Companies - were legalized; they had been major agents in the parallel credit market in previous years. In 1974, bank lending rates were freed, most rates to depositors increased, harsher rules for borrowing from the central bank by the public and private sector established and development rediscount funds redesigned to guarantee self-financing. Liberalization of lending rates was soon reverted, due to massive monetary contractionary policies adopted during the coffee boom years (1975-80). These policies included 100 per cent marginal reserve requirements on current accounts, increased reserve requirements for savings and term deposits and the partial sterilization of the external surpluses through the deferred maturity of foreign exchange certificates. The high reserve requirements led to a whole set of 'financial innovations' to circumvent existing regulations. This process was accompanied by the chaotic proliferation of new financial intermediaries and activities, both domestically and abroad - through subsidaries of Colombian banks in Panama, the U.S.

and the Caribbean havens - most of them without adequate controls. In early 1980, reserve requirements were reduced, lending and term deposit rates were freed and massive open market operations designed to maintain controls over the money supply (Jaramillo, 1982; Ortega, 1979 and 1982; Montenegro, 1983).

It should be finally pointed out that fiscal policy has traditionally been conservative in Colombia. Fiscal deficits have been maintained within the limits imposed by external financing. Central bank credits to the government have been limited in the past and subject to Congressional approval. Non-monetary domestic financing is extremely reduced. Expenditure control has strongly affected public investment in the past; nonetheless, real wages of government employees have been used many times as an adjustment variable, particularly in the mid-1960s and 1970s and recently in 1985. Long-run changes in the tax system, particularly in the income and sales taxes, have partially dissociated fiscal revenues from external events. Nonetheless, in the late 1970s, a new form of fiscal dependence on external variables was created, as massive profits from foreign exchange management were automatically transferred to the National Treasury. These profits resulted both from the investment of international reserves abroad and, somehow unexpectedly, from domestic exchange operations, as a side effect of reserve accumulation and nominal devaluation. In 1982, when foreign exchange profits peaked, an amount equivalent to 2.8 per cent of GDP was transferred to the National government on that account. As we will see shortly, this dependence became a major source of debate in the early 1980s (Perry and Cárdenas, 1986; Cárdenas and Ocampo, 1985; Jaramillo and Montenegro, 1982).

II. PHASES OF ECONOMIC POLICY AND ACTIVITY, 1980-85

The evolution of economic activity in the first half of the 1980s may be seen as the result of three interrelated sets of events. The first were a series of external shocks, starting with the collapse of international coffee prices in mid-1980, followed by the tightening of world capital markets after the Mexican crisis of August 1982, and the Venezuelan devaluation of February 1983. A second set related to changes in government policy. Three major phases in economic policy can be broadly defined: a period of expansionary fiscal policy with a contractionary monetary policy and liberalization of import controls (1980-82); a phase of 'heterodox' policy management, aimed at simultaneously producing a falling external disequilibrium and an expansion of domestic economic activity (1983 and part of 1984); and, finally, a period in which a more orthodox policy package was superimposed on previous heterodox policy measures (1984-85). A third set of events generated an autonomous inflationary cycle, largely associated with changing agricultural supply conditions. Nonetheless, the Venezuelan devaluation and falling urban household rents and mark-ups during the recession may have played a role in the process.

This part of the paper presents a first approximation at the analysis of economic events in the first half of the 1980s. The period is divided in three phases, corresponding to the stages of economic policy defined above. In part III, a more formal analysis of the different policy packages and their distributional impact is carried out. Policy measures and events associated with the recent coffee boom are considered in part IV.

1. Growing disequilibria and economic recession, 1980-82

Conditions at the outset of the 1980s were quite

favourable to Colombia. The economy had experienced a substantial foreign exchange boom in the second half of the 1970s, associated with record coffee earnings and, secondarily, high exports of goods and services to Venezuela and illegal drug sales.[1] High exports led to five consecutive years of current account surpluses. Debt ratios consistently fell through the period and, by late 1980, the external debt, net of foreign exchange reserves, was a meager US$880 million - 21 per cent of exports of goods and services. The years of foreign exchange boom had also been a period of satisfactory growth and falling unemployment. By the end of the 1970s, the inflationary shocks of the early part of the decade and the first two years of the coffee boom had been observed and inflation had stabilized around 'inertial' levels of 25 to 28 per cent. Nonetheless, several symptoms of economic deterioration had been building up during the boom years. The exchange rate was revalued in real terms, particularly in 1977, to control inflationary pressures and to reduce the domestic saving effort required to finance reserve accumulation. Revaluation and falling subsidies had resulted in a stagnation of export diversification, as we saw above. Industrial growth had slowed down since the 1970s and the financial system was increasingly fragile, as profitability had been maintained by resorting to 'financial innovations' and speculative investments in order to circumvent controls and take advantage of the environment of credit shortage and monetary expansion (Ocampo, 1987; Montenegro, 1983).

The new Turbay administration, inaugurated August 1978, adopted a radically different economic policy to that followed during the early years of the coffee boom. The new policy combined an expansionary fiscal policy with a contractionary monetary management and a significant liberalization of import controls. The expansion of public investment was justified on developmental grounds as, according to the government, new roads and energy projects were needed to overcome bottlenecks to economic progress

(DNP, 1979). The basic assumption of the strategy was that the economy was close to full employment, as growth in 1978 had been quite impressive by Colombian standards (8.9 per cent). Given the limitations of the domestic capital market for long-term assets, it was also assumed that public investment could only be financed by long-term borrowing abroad. Thus, in the conception of the administration, import liberalization and massive open market operations were essential to prevent the development of a new inflationary spiral. Changing conditions in the world coffee market in 1980 did not lead to any change in policy, regardless of the fact that falling domestic coffee incomes had a deflationary effect and that import liberalization could only be financed now by borrowing abroad.

Economic policy thus led to rapid increases in fiscal and balance of payments deficits in the context of a general recession. By 1982 the fiscal equilibrium typical of 1978 had been transformed into large deficits for the national government and the public sectors as a whole - 4.5 and 7.5 per cent of GDP, respectively, excluding the National Coffee Fund in the latter case (Table 2). Rising public investment was only part of the explanation. The 1979 tax cut, leniency in tax administration and rising current expenditure accounted for more than half of the rising deficit. Simultaneously, falling coffee and minor exports reduced foreign exchange earnings by close to $1.0 billion between 1980 and 1982. Nonetheless, the government continued the import liberalization process. By 1982, more than 70 per cent of all items in the tariff schedule could be imported without any prior license; the corresponding figure had been 30 per cent in 1974 and 54 per cent in 1979 (Coyuntura Económica, March 1986). The 1970 tariff reform had reduced the average import tariff to only 26 per cent - about two fifths of protection levels typical in the mid-1960s (Giraldo, 1979; Martinez, 1986). Moreover, the government effectively revalued the peso, as it tied the rate of devaluation to the difference between Colombian and U.S.

inflation, when the dollar was appreciating in the world market (Figure 1). Thus, by 1982 the country was running huge trade and current account deficits - $2.1 and 2.9 billion, respectively. Inflows of foreign capital for close to $2.0 billion, both in 1981 and in 1982, financed the booming current deficits without a significant foreign exchange drain (Table 3). About half of these capital inflows were associated with the public investment projects undertaken as part of the economic strategy adopted since 1978, and the rest with direct private investment, short-term and long-term private borrowing in roughly similar proportions.

External savings increased by the equivalent of 7.7 per cent of GDP between 1980 and 1982. Excluding coffee finances, the fiscal deficit in the same period increased by 2.9 per cent of GDP, or by 4.8 per cent if the National Coffee Fund is included. Clearly, external leakages were stronger. This single fact was the major source of the recession that spread in 1981 and 1982, particularly in the manufacturing sector (see Table 2 and Figure 2). With a lag, associated with falling labour participation, unemployment rates followed. In fact, employment levels in the secondary sector started to fall in 1981, but employment kept increasing due to labour demand in the service sector (Table 2). Finally, the impact of recession on internal debts, combined with the leniency of financial controls during the boom years, led to the first bank failure in mid-1982 (Banco Nacional), just before the end of the Turbay Administration. The financial panic which followed made for the first time apparent that the financial system had become extremely fragile. A significant number of bank and other financial institutions failures were soon to follow, encompassing some subsidiaries of Colombian banks in Panama.

The dominant interpretation of the recession by power groups emphasized the 'crowding out' of business investment by fiscal expansion. The single most important attack was on

the automatic trasfer to the government of the profits from foreign exchange management. The resulting monetary expansion, it was argued, led to high interest rates, as the central bank was simultaneously forced to undertake massive open market operations. Curiously enough, this line of reasoning ignored altogether the booming current account deficits with the rest of the world as a source of domestic recession. In the diagnosis of the industrial crisis, however, the impact of import liberalization was usually pointed out. There was also concern with the stagnation of minor exports and the overvaluation of the currency, but no generalized consciousness of the depth of external disequilibria.

2. Transition to a heterodox stabilization strategy, 1982-84

The initial diagnosis of economic conditions by the Betancur Administration, inaugurated August 1982, shared considerably with the former view of the crisis (see, for example, Gutiérrez, 1982 and DNP, 1983). The most urgent concern was, obviously, the financial panic under way. Emphasis on the need to expand private credit, to sterilize profits and to cut the fiscal deficit reflected an agreement with the 'crowding out' story. As in the businessmen's perspective, protection and export promotion were initially seen as sources of industrial recovery more than as balance of payments policies. Indeed, external deficits did not figure out as such as a major policy concern. Private credit, protection and export promotion were combined with a large-scale programme of low and middle-class housing construction as the basis of the reactivation strategy. However, the strength of the recession, the failure of initial policy measures and the rapid foreign exchange drain which started in 1983 led the government in this year and early 1984 to design a new strategy, in which gradual adjustment of the current account deficit was implemented as part of a net expansionary stabilization package.

Initial actions of the administration focused on the financial panic, initiating continuous actions which led to increasing intervention in the financial system. In October 1982, an 'economic emergency' was decreed to strengthen controls on financial intitutions, to force 'democratizacion' of property and to allow the government to nationalize banks and other financial institutions under extreme conditions. In late 1982 and in the following years, a large number of banks and other intermediaries were nationalized de jure or de facto. Of initial objectives, 'democratization' soon faded into the background and was replaced by 'capitalization'. Special rediscount funds were created for that purpose in 1984 and the Fondo de Garantias created in 1985 with that immediate objective in mind.

Mechanisms to refinance private foreign debts and mounting non-performing domestic loans were also designed. The first mechanism was created in mid-1984 and included an automatic financing by the Central Bank of part of devaluation costs when private companies were successful in refinancing their debts with foreign banks. Later in the year, the government accepted to cover through Banco de la República part of devaluation costs when they exceeded a specific threshold. Companies did not benefit widely from this provision, as refinancing operations were slow and finished when rapid devaluation had been completed. Thus, as of April 1986, only US$210 millions had been refinanced, representing a meager 6 per cent of private external debt. Later, in 1985, special mechanisms were also designed to refinance non-performing loans, which included special rediscount facilities, but the government refused to consider nationalization of those loans, through mechanisms similar to those adopted in the 1930s.

In other areas of economic policy, continuity was not the rule. Following the 'crowding out' diagnosis, the government created massive rediscount facilities for the private sector in late 1982 and reduced current account

reserve requirements in early 1983 (Coyuntura Económica, December 1983). Among the major reasons argued to decree a second 'economic emergency' to undertake a fiscal reform in late 1982 was the need to sterilize the profits from foreign exchange management and, more in general, to reduce the need for monetary financing of the budget. The private credit-led recovery strategy was soon a fiasco (Perry, 1984). New credit facilities were used only slowly and partially, due to the low demand by private companies under severe financial conditions and risk aversion by financial institutions. In these circumstances, economic authorities were clearly 'pushing on a string'. However, somehow misleadingly, the term 'liquidity trap' was used to describe the results of the strategy, as the banks accumulated liquid reserves while interest rates showed no signs of decline. Although it differred significantly from the similar Keynesian concept, it shared with it the failure of monetary policy to stimulate economic activity.

In the first half of 1983, three new conditions led to a completely different economic strategy. First, the recession had deepened since the last semester of 1982, and GDP had fallen for three consecutive quarters (Coyuntura Económica, March 1984 and April 1985). Secondly, a strong monetary contraction associated with a foreign exchange drain started. Since private credit expansion was showing to be an inappropriate mechanism, it was deemed necessary to use central bank credits to the public sector for that purpose, lest monetary contraction deepen the recession. Thus, an 'autonomous' monetary contraction generated by falling international reserves was initially used to justify monetary financing of the budget; a few months later, orthodox critics argued the opposite - i.e., that monetary financing of the public sector was the cause of the reserve drain. Finally, after the Venezuelan devaluation of February 1983, foreign exchange speculation reached large-scale dimensions and finally brought to the foreground the need for an active external policy.

A myriad of balance of payments instruments were put into effect, reinforcing measures adopted since late 1982. The rate of the crawl was accelerated, export subsidies and import tariffs raised, prior import deposits established for some services, exchange controls reinforced and strong import controls reimposed. The latter was actually the central element of the balance of payments strategy. In April 1983 the government massively transferred goods to the prior licensing regime and some to the prohibited list. By early 1984, a strict foreign exchange budget had been adopted: 83 per cent of all items in the tariff schedule were then subject to prior licensing, 16.5 per cent were in the prohibited list and only 0.5 per cent could be imported without any administrative control. Although the import control system was designed not to hinder industrial production, by concentrating restrictions on final goods, it also resulted in delayed licensing of intermediate goods, particularly in 1984 (See Villar, 1985a and Coyuntura Económica, March 1986).

Fiscal adjustment lagged behind. Real public expenditure was maintained or even increased - except investment financed by the National Treasury - but the government adopted an ambitious tax reform in 1983, encompassing income, sales and local taxes. Although the major effects of the income and local tax reforms produced important and permanent increases in government revenues since 1983, the new sales tax system was only implemented in April 1984. Since the impact of the tax reform was slow and external credits and foreign exchange profits were in the downswing, the government asked the Congress in mid-1983 to raise the ordinary credit lines of the Treasury in the central bank and to create a 'reactivation credit line' of Col.$60 billion (equivalent to 2 per cent of GDP in that year), of which 60 per cent could be used immediately. The government did not guarantee, however, enough funds to maintain the fiscal strategy. In 1984 it was forced to use the warranty of Banco de la República on short term public debt bonds to

obtain monetary financing to the budget without Congressional approval. However, monetary financing increased only slightly as a proportion of GDP from 1982 to 1984 (0.5 per cent), and the National government deficit actually decreased from 4.5 per cent to 4.0 per cent (see Table 2). Moreover, the inertia of the budget deficit was partly associated with falling import tariff revenues induced by import contraction and preference in license allocation to tariff-free government purchases.

In the face of falling balance of payments deficits (see Table 3 and Figure 1), the initial net effect of economic policy was expansionary. In simple terms, balance of payments policies, particularly import controls, played an active, and fiscal and monetary policies a passive role in a globally expansionary strategy. Thus, import controls were used as the main tool both to narrow the external gap and to stimulate production, especially in the manufacturing sector, but no major cuts were made simultaneously in the budget deficit or in domestic credit. The final result was a net increase in the private sector expenditure capacity, which partly boosted industrial demands and helped to increase private savings to finance domestically the virtually unchanged fiscal deficit without any 'crowding out' effects (Coyuntura Económica, April 1985). However, as the simulations of part III indicate, part of the expansionary result may have been temporary in character, as the effect of import controls was manifested sooner than the full impact of the tax reform.

In 1982 and 1983, the basic assumption of the Administration was that the room of manouvre was unlimited, given the strong reserve position of the country. Thus, it was possible to simultaneously pursue external and internal policy targets. The most significant element of the strategy, which would come into open contrast with later orthodox policy measures, was the decision not to use demand management policies to adjust the balance of payments. The

decision was correct, as external deficits had little to do with excess demand of any sort. Rather, as we saw in the previous section, the underlying causes were the deterioration of key prices in the international markets (coffee in particular) and policy-induced biases in the composition of internal demand, generated by import liberalization and revaluation of the currency. Furthermore, the strong debt position and favourable export prospects justified the resource to a temporary financing strategy even on very traditional grounds. Finally, the decision not to use the exchange rate as a major policy instrument reduced the inflationary and contractionary effect of the adjustment process, while maintaining the confidence in the crawling peg (Londono and Perry, 1985; Ocampo, 1983 and 1987).

The strategy achieved its main objectives. The trade balance continuously improved since early 1983 and was in equilibrium by the last quarter of 1984 (Figure 1). In terms of annual averages, the trade deficit decreased by $1.7 billion between 1982 and 1984, and the current account simultaneously improved by $1 billion. Gradual devaluation had also been effective by late 1984 in reversing the real appreciation of 1980-82, although it was generally agreed that the peso was still overvalued. Furthermore, improvements in the balance of payments were accompanied by an economic recovery, particularly in the industrial sector (Table 2 and Figure 2). Fears that import controls would impair the recovery for lack of essential intermediate goods were never fulfilled (Coyuntura Económica, October 1985). Indeed, although the stock of imported inputs was reduced, due to slow licensing, it only induced difficulties in a few industrial sectors, since rationing mechanisms favoured intermediate goods imports and there were considerable excess inventories of raw materials at the outset of the recovery. A rapid fall in the inflation rate (Figure 2), associated with increasing food production, reduced foodstuffs exports to Venezuela and slow increases in

household rents, generated a windfall gain to urban wage earners (Table 2), with a net expansionary effect (Londono, 1985). However, employment conditions continued to deteriorate as the lack of confidence in the persistence of economic recovery prevented firms from expanding their payroll on a permanent basis. Thus, all new job placements were generated in self-employment activities and in temporary jobs, subject to rapidly falling real earnings (See Misión de Empleo, 1986 and Table 2).

While the trade balance improved rapidly, a simultaneous deterioration of the capital account led to a significant fall of reserves in 1983 and 1984 (see Table 3). Long-term capital flows were not a decisive part of the story. Indeed, the reduction of long-term financing was matched by increasing direct investment in the energy projects. Although the 'Mexican' shock reduced certain forms of commercial financing to the Colombian government, significant undisbursed credits at the outset of the crisis ($3.7 billion in December 1982) and large dependence of the Colombian public sector on multilateral, bilateral agencies and suppliers (63 per cent of outstanding loans in 1982) reduced the impact of the international credit squeeze. These agencies increased the effective supply of funds to the country, not only in the traditional form of project-financing, but also through balance of payments loans under several headings (export promotion and industrial recovery) and through a rollover mechanism managed by Banco de la República to accelerate disbursements.

Capital flight was only part of the story. The usual measure of 'pure' capital flight under exchange controls - the 'errors and omissions' of the balance of payments - indicates that it was responsible for only $441 million of reserve losses in 1983-84. More important than capital flight was the cancelling of short-term debts during these years, largely explained by the new trade conditions and by

lack of regulations on foreign exchange operations of some public agencies. Since a large proportion of private short-term debts is related to import financing in Colombia, a period of falling imports induces a reduction in the foreign debt - i.e., a capital outflow. Since, moreover, the composition of private imports was increasingly biased towards raw materials, which have shorter financing periods than capital goods, an additional reduction of the commercial credits was expected. Overall, these factors probably account for all the net short-term private capital outflow in 1983-84, as the ratio of the foreign commercial debt of the banking system to imports actually increased during these years: from 23.5 to 36.2 per cent in 1982-84 (20.1 to 21.8 per cent if Banco de Colombia is excluded). Unexpected repayments of short-term debt were actually more substantial in the case of large government agencies. Ecopetrol and Carbocol (the oil and coal government firms) repaid close to $300 million in short-term debts in 1983-84. After reaching a peak in 1983, the National Coffee Fund also reduced its debt in 1984.

3. The orthodox phase

Some measures adopted by the new Minister of Finance in the second semester of 1984 did not constitute a break with the gradual adjustment process which had been taking place since 1983. Foremost, minimum payment periods for new imports were established in late 1984 to force an increase in private short-term debt, and the magnitude of foreign indebtness was negotiated with the National Federation of Coffee Growers and Ecopetrol to avoid further capital outflows by these agencies; the government allowed them to hold interest earning foreign exchange certificates issued by the central bank as an alternative. Furthermore, severe import controls were maintained although, as we will see shortly, a gradual import liberalization was started in mid-1985. Finally, adjustment of public finances through higher taxes was pushed forward. In late 1984, an additional

8 per cent tariff surcharge was established for most imports, forced savings in government bonds for some income tax earners were adopted and several exemptions to the sales tax were eliminated. In mid-1985, earmarked revenues within the government were redistributed, the withholding mechanism for the income tax was extended, and some tax exemptions for Ecopetrol and Carbocol eliminated.

The conception of the adjustment process was completely altered, however. This became increasingly clear as negotiations with the international financial institutions proceeded. The basic element in the new strategy was the emphasis on demand management, which obiviously indicated that excess demand was regarded as a basic source of balance of payments disequilibria. Reductions in public expenditure - both real wages and investment - were added to the previous fiscal stabilization package. In fact, fiscal contraction was stronger than Table 2 indicates, as the government finally accepted in mid-1985 that fiscal 'overkilling' was going on at the time (it was overfulfilling the targets established with the IMF) and decided to accelerate public investment projects in the last few months of the year. Rapid devaluation was added in 1985, to recover the 1975 'parity' levels - a real depreciation of 30 per cent in the year (Figure 2). Finally, following pressure from the World Bank, the government accepted to gradually liberalize the foreign trade regime. Although expectations of a large-scale liberalization were never fulfilled, the government liberalized the drawback mechanism for minor exports in early 1985, cut tariffs and reduced import controls in mid-1985, and further liberalized controls in February 1986 (Coyuntura Económica, April 1985 and March 1986).

The Colombian government followed a negotiation strategy radically different from that of other Latin American countries. The Minister of Finance actually recommended a stand-by agreement with the IMF in a letter to the President

that leaked to the press in late 1984. The President, however, refused to consider that possibility and asked economic policy makers to look for a different negotiation strategy. From the domestic political perspective, recalls of the 1967 confrontation with the IMF and fears of impairing the peace process with the guerilla movements, in the face of daily news of popular unrest in other Latin American countries associated with the adjustment programmes, may explain this decision. In the international context, the President also tried to keep intact his political image as a progressive government, while claiming to the financial community that Colombia had not been subject to economic mismanagement, that it had good export prospects and that, in any case, self-discipline had been adopted. The first attempt was made at a World Bank monitoring of the Colombian adjustment programme, based on the long tradition of Bank support to the country. However, the private banks demanded a formal IMF programme. U.S. pressure was crucial in the final formula adopted: a monitoring of the Colombian macroeconomic programme by the Fund instead of the formal stand-by agreement (Junguito, 1986).

Final acceptance of this mechanism by the private banks did not imply that conditionality was restricted to macroeconomic policy. Indeed, refusal to use IMF lending facilities or refinancing of outstanding loans led the government to ask for fresh lending from the Interamerican Development Bank, the Andean Reserve Fund (FAR) and the private banks, on top of the resources already requested from the World Bank in connection with the original monitoring proposal. While credits from the IDB and FAR were free of specific conditionality, this was not true of other agencies. World Bank conditionality was particularly important in foreign trade policy, as we saw above. Demands by the private banks were more specific. They related to the recognition of the debts of the subsidiaries of Colombian banks in Panama and on more specific policies affecting

Colombian firms with large foreign debts.

The results of the orthodox stabilization package were less contractionary and inflationary than initially expected. There was just a slowdown of economic growth, particularly in the industrial sector (Table 2). Actually, as Figure 2 shows, manufacturing production stagnated in 1985, growth in annual averages being determined by growth during 1984, largely associated with the lagged expansionary effects of import controls. Employment stagnated and unemployment levels rose. Real wage fell, but this was not the result of devaluation but rather of the unfavourable food supply shock that sharply reversed inflation tendencies in the second semester of 1984 (Figure 2). Actually, contrary to all expectations, the period of rapid devaluation was accompanied by falling inflation rates (see Figures 1 and 2). A reversal of domestic food supply conditions and very moderate wage settlements were certainly part of this result. However, as we will show in part III, falling urban mark-ups were also important. This means that profits absorbed part of the devaluation shock, reducing the inflationary impact of exchange rate adjustment and operating as an automatic stabilizer. This indicates, however, that inflationary and contractionary effects of rising mark-ups may be important in the future. The implications of this possible trend will be explored in part IV.

It should be finally pointed out that favourable balance of payments results in 1985 (Table 3) had little to do with demand management or rapid devaluation. Trade balance equilibrium had already been achieved in the last quarter of 1984, as Figure 1 shows. Actually, there was rather a reversal of favourable trends in the trade balance when quarterly figures are compared. International negotiations cannot explain much of the improvements in the capital account either. Although, some additional funds from the World Bank came into the country, the negotiations of a

'jumbo' $1.0 billion loan with the private banks did not come to an end in 1985. Most of the improvements in the capital account were thus associated with a series of specific policies and events, most of them unrelated to the orthodox shock: the previous absorption of capital outflow associated with falling imports, the minimum payment period for new imports established in December 1984, the balance of payments credits from the Andean Reserve Fund, closer controls on foreign exchange operation of public agencies and an unexpected inflow of illegal capital, apparently associated with closer controls of U.S. banks on large cash (drug trade) deposits. The latter effect may actually explain why the rapid acceleration of the crawl in early 1985 did not induce an important increase in the premium paid in the black market for foreign exchange, as should have been expected, given large incentives to capital flight. Therefore, although orthodox adjustment will certaintly have stable medium-term impacts on external accounts, the short-term improvement in the balance of payments in 1985 was determined by other factors.

III. THE IMPACT OF EXTERNAL SHOCKS AND STABILIZATION POLICIES, 1980-85

As we saw in previous sectors, three different phases of economic management can be clearly differentiated between 1980 and 1985. From 1980 to 1982 economic disequilibria increased as a result of external shocks and inappropriate macroeconmic policies. A first attempt at adjustment then followed. Emphasis was placed on policies aimed at directly eliminating the trade deficit and reducing the fiscal deficit through higher taxation. During this phase, demand management was not deemed necessary to attain these objectives, and thus government expenditure in domestic goods and real wage increases were not curtailed. By mid-1984, the emphasis shifted to cuts in government expenditure and rapid devaluation. However, previous measures were maintained and even reinforced, with additional tax hikes and forced savings.

Since the end of 1985, when the bulk of the adjustment process had been completed, public opinion and the international banking community has praised the government for having corrected external inbalances by means of the austerity package adopted since mid-1984. Little recognition has been given to previous measures, and it is even considered that the main achievement of the fiscal phase was to substantially correct the policy mistakes made between 1982 and 1984. Even less attention has been given to the social and distributional cost of the adjustment process.

The purpose of this part of the paper is to analyze in a more formal way the role played by policies adopted within the two adjustment phases and to assess their main implications in terms of economic activity, employment and income distribution. Not surprisingly, only part of what actually happened in Colombia during the last few years can be attributed to economic policies. Agricultural supply shocks, and relative price changes induced either by

external factors or by a modification of pricing rules were also important, especially regarding distributional results.

1. The basics of the model

The analysis that follows is carried out with the help of a computable general equilibrium model previously developed for the Colombian economy, which adequately captures the main structural features described in part I.[2] A detailed description of the model exceeds the space restrictions and the purpose of this paper. However, a sketchy presentation may help to understand the basic elements at work. The model uses a complete social accounting matrix (SAM) that contains the income/expenditure and supply/demand accounts, using the classification of sectors or production and social classes defined in part I. Besides, as is customary in SAMs, additional accounts are included to describe the current account transactions of the government and the external sector, and to show the origin and uses of savings. The model assumes constant physical coefficients of demand for different types of labour in each sector and fixed coefficients of distribution of sectorial surpluses (in current prices) between peasants, rentiers and capitalists. After paying direct taxes, disposable incomes are assigned to consumption and savings according to previously estimated Stone-Geary consumption functions.

Adjustment mechanisms in each sector correspond to those analyzed in part I. Thus, the level of production adjusts the urban sector, prices the foodstuffs market, foreign trade the raw materials and mineral sectors, and inventories the imbalances between coffee supply and demand. Public enterprises are included as part of each productive sector. Government services and investments are exogenous. Tax rates are also exogenous but tax revenues are endogenous to the level of economic activity, foreign trade and relative prices. Imports depend on economic activity but are relatively inelastic to relative prices - more so in the

case of intermediates than final goods, according to previous research (see, for example, Villar, 1985b). Fix-price rationing may also reduce the import level. Exports other than coffee and minerals are sensitive to relative prices.

Finally, following the Keynesian tradition, savings adjust to investment to close the model. However, it should be noticed that savings depend not only on the level of production but also on the distribution of income among social classes. As a very large proportion of peasants and rural rentiers' incomes come from foodstuffs' production, distribution is highly sensitive to food prices and, through this channel, to the balance between food supply and urban economic activity.

2. The initial conditions

In order to simulate the stabilization programmes, a set of scenarios were built for 1982 and 1985. The basic scenario for 1982 was developed on the basis of the SAM estimated for 1980 and historical data on the exogenous variables required by the model.[3] This basic scenario ressembles the actual conditions of 1982 fairly well. Thus, it captures the slowdown of economic activity with respect to historical trends, and the new tendencies of the different components of final demand (Table 4, cols. 1, 3 and 4). The scenario also reproduces the main disadjustments facing the Colombian economy at the time. Trade and current account deficits estimated are virtually identical to the actual results. On the other hand, it captures the fact that the public sector's balance had deteriorated sharply from 1980. This situation largely reflects the decrease of the coffee surplus, as a result of price reductions in foreign markets which were incompletely passed on to domestic producers. Finally, it shows that, despite the slowdown of demand and the depression of most commodities in the international market, the economy was under inflationary

pressures coming from the foodstuffs' market.

The separate effects of the external crisis and domestic events in the 1980-82 period can be isolated by keeping 1980 external prices and demands constant. This simulation (Table 4, column 2) indicates that domestic factors were responsible for most of economic activity slowdown, for over a half of the increasing fiscal deficit and for not less than a third of current account deterioration. Indeed, real devaluation, import liberalization and very moderate (or negative) rates of growth in primary sectors alone would have produced a fall of 3.1 per cent in the rate of growth of GDP over historical trends and a current account deficit equivalent to 1.7 per cent of GDP.

3. The adjustment packages: assumptions

As we saw in part II, two adjustment packages were implemented between 1982 and 1985 to correct macroeconomic disequilibria. In the discussion following, these packages have been labelled 'heterodox' and 'orthodox', although they cannot be identified with any particular school of economic thought. For conveniency, those measured taken after mid-1984 reinforcing previous policies, are considered as part of the 'heterodox package'. Hence, the packages should not be identified with particular Ministers of Finance, but rather with the major analytical approaches on the adjustment process.

To analyze the effects of these packages, it is useful to simulate a hypothetical or 'reference' situation of the economy based on previous trends. To do so, it was assumed that government demands and supply-determined sectors would grow at an 'inertial' rate of 3 per cent; in the coffee and minerals sectors, however, historical rates were assumed, as their actual productions were largely determined by previous plantings and by the large-scale projects already underway (Table 5, col. 2).[4] Historical figures were also assumed for

the foreign debt and international reserves. With respect to the exogenous prices required by the model, it was assumed that previous trends would prevail, both internally and externally, which implied that most relative prices would remain unchanged, except in oil and other mineral products, where a relative decline was foreseeable.[5] As shown in Table 4 (col. 5), in this hypothetical scenario, economic activity would have picked up respect to 1980-82, reaching rates of growth around 3.6 per cent, at the cost of an acute deterioration of the current account with the rest of the world. Furthermore, the budget deficit would have increased to 5.6 per cent of GDP, compared to 4.0 per cent in the 1982 basic scenario. International reserves would have been insufficient to cover the current account deficit, given the net inflows of foreign resources that could have been obtained in the world financial markets. Thus, policy adjustments were clearly necessary to correct rising macroeconomic disequilibria.

As discussed in part II, the 'heterodox' stabilization package was mainly directed at restraining all types of imports - final goods in particular - to devalue the real exchange rate gradually and to increase tax receipts, both from direct and indirect taxation. Further increases in private real wages and maintenance of public real expenditure were not considered inconsistent with the stabilization programme. To capture these elements, a scenario was constructed assuming that all final-goods import functions and all tax coefficients shifted exogenously according to actual results in 1985 (see Table 5, Col. 3). Real wages in the private sectors were assumed 6 per cent higher than those in 1982, but those in the public sector were kept unchanged, as it actually happened. Domestic components of public expenditure were increased with respect to the 1985 'reference' scenario in order to compensate for public imports reductions, thus implying a recomposition rather than a reduction of public expenditure. Finally, an increase of 15 per cent in the real exchange

rate was assumed.

Another scenario was built to simulate the 'orthodox' stabilization package and its effects. The assumptions were a real devaluation of 30 per cent, slower rates of growth of public employment, a cut of 10 per cent in the real wages of bureaucrats and a reduction in public spending stronger than in the heterodox package (Table 5, col. 4). As this orthodox stabilization package did not substitute the orthodox one, a third scenario was developed combining the two. As it actually happened, the combined package kept the harsher measures of both, except in relation to private and public real wages and employment in the government sector, where the conditions that finally prevailed were those of the heterodox package.

4. The adjustment packages: simulation results

Before analyzing each of the three scenarios just defined, it is worth discussing the main effects of devaluation alone, which was their most important common factor. For this purpose, the real devaluation of the orthodox programme - 30 per cent - was assumed. Two alternative real-exchange rate elasticities of urban-goods exports were assumed: 0.3, applicable to short-run export responses, and 1.0 valid for the longer run. In the other scenarios for 1985, only the former was assumed, as real devaluation effectively took place during 1985, so that its full effects were still to be seen at the end of that year. In this and all simulations of stabilization packages, domestic real coffee prices were kept constant, and all profits from devaluation were thus transferred to the National Coffee Fund through higher retention quotas. It must be pointed out that, due to the linearity of the model, the main conclusions of the analysis are extensive to other hypothetical devaluation rates.

Given the amount of the initial disequilibrium in the external sector, real devaluation had favourable though moderate effects in the current account deficit measured in local currency, both in the short and in the long run (Table 4, cols. 5, 6 and 7). Since coffee and mineral exports - which account for roughly one half of total exports in the reference scenarios - are not sensitive to price variations, and induced domestic demand effects are relatively unimportant, the total implied relative price elasticity of exports was just 0.22 in the short run and 0.33 in the long run. Very limited total elasticities were also found for imports (-0.25 and -0.20), as a result of small price elasticities, even in the face of a contraction of economic activity - see below. Hence, the reduction of the non-financial external deficit was just 0.9 per cent of GDP in the short run, and that of the current account 0.4 per cent, as net interest payments in local currency increased by 0.5 per cent. Only an additional gain of 0.5 per cent was achieved in the current account deficit in the long run as a result of complete manufactured goods export response. Devaluation was more effective in reducing the public sector deficit. Indeed, not only did it increase tariff revenues and other indirect taxes, but it also generated a large surplus in the coffee sector (1.3 per cent of GDP), which was transferred to the National Coffee Fund.

According to our simulation results, devaluation was contractionary in Colombia in 1982-85. Low foreign trade elasticities and the transfer of coffee rents to the public sector limited the expansionary effects of devaluation, while the higher domestic currency value of imports and the reduction of real wages produced a strong contractionary effect. This effect helped to reduce external disequilibria by shrinking import demands and by leaving larger quantities of minerals and raw materials to be exported, but had high distributional costs. Urban workers lost 1.6 per cent of GDP, while capitalists increased their share by 1.7 per cent (Table 6, cols. 5 and 6). Since this redistribution reduced

foodstuffs' relative prices, all rural social classes lost, notwithstanding the extra profits obtained in export activities. In short, the only social group that won as a result of devaluation were the capitalists, who supplied most of the additional domestic savings needed to finance the higher cost of foreign capital goods. These distributional effects were almost identical in the short and in the long run, as contractionary effects were only partly compensated by higher exports and most relative prices remained unchanged after the initial shock.

Devaluation was not the only contractionary policy in either of the two stabilization packages. Although the heterodox package redirected public and private domestic expenditures towards home goods through a recomposition of government expenditure, import controls and increased wages, it had an important contractionary component: higher taxation. According to our simulation results, the contractionary effect of taxation and devaluation dominated the expansionary effects of expenditure switching and higher wages, thus reducing urban rates of growth from a potential 3.6 per cent without macro adjustment to 1.2 per cent. (As we will discuss later, this net contractionary effect was partially compensated by an important mark-up reduction). However, the heterodox package did effectively avoid most of the regressive distributional effects that devaluation alone would have produced. In fact, income shares of urban workers shrinked less, and that of rural workers improved mainly at the expense of rural rentiers and peasants, while capitalists kept their share practically unchanged (Table 6, cols. 5 and 8).

Aside from the distributional advantages of the heterodox package, it was also very effective in correcting both external and internal disequilibria. Our model indicates that the combination of import controls and the moderate real devaluation carried out in this package was successful in eliminating the deficit of non-financial

current transactions and in reducing from 7.3 to 2.8 per cent of GDP the whole current imbalance. With respect to the public sector accounts, the heterodox adjustment programme was able to cut the fiscal deficit from 5.6 per cent to 1.8 per cent (Table 4, cols. 5 and 8). Furthermore, the latter results were mainly obtained, not by increasing the coffee sector surplus, but by higher income of the public administrations proper.

In contrast, had the orthodox package been implemented alone, the results would have been much less satisfactory (Table 4, col. 9). The trade-cum-non financial services balance would have remained in the red, and the current accout deficit would have been reduced by only 1.5 per cent of GDP. Its performance in terms of the public accounts would have been more satisfactory, as it would have reduced the deficit from 5.6 per cent to 1.8 per cent. However, a larger part of that improvement would have been generated in the coffee sector, the resources of which are not easily transferred to the central government. Therefore it would have been less effective than the heterodox programme in removing the financial constraints affecting public administration activities. In short, the orthodox package would have been insufficient to correct the macroeconomic disequilibria, unless all its measures had been made much harsher, at the cost of severely depressing urban economic activities and employment.

Furthermore, the orthodox adjustment programme was designed in a way in which it could not compensate the undesirable effects of devaluation. It rather tended to reinforce them, especially by further increasing capitalists' share in total income, mainly at the expense of rural rentiers (due to a reduction of relative foodstuffs prices) and bureaucrats (both on account of real wage losses and reduced employment in the public sector). Furthermore, the model results confirm that the orthodox package had a stronger contractionary bias, which would have resulted in a

severe stagnation of urban productions and a slower growth of urban employment. Due to the stagnation of urban activities, GDP under orthodox stabilization would have grown only 1.9 per cent annually, as compared with 2.3 per cent in the heterodox package.

However, the consequences of the orthodox stabilization programme should not be judged isolating it from the heterodox package, as the decision taken by economic authorities was to superimpose it on the latter. Thus, the final stabilization programme was a mixture of both, with most of their effects reinforced. The 'combined' package actually had a net contractionary effect on urban activities, but total GDP grew due to rising primary production and government service activities (Table 4, col. 10). In terms of the components of final demand, this was attained by cutting both household consumption and investment expenditures.

The induced slowdown of economic activity was matched by substantial additional improvements in the current and in the public accounts. If the heterodox programme scenario is taken as the basis for comparisons, the 'combined' package can be made responsible for an additional reduction of 1.0 per cent in the current account disequilibria and 2.0 per cent in the public sector deficit. Although the former may not seem excessive, as a deficit of 1.8 per cent still remained, the latter certainly was, as the public sector moved to surplus. Hence, the 'combined' package had an unnecessary component of overkill, which could not be justified on any grounds, as the economy was running well below capacity, and moderate public deficit, such as that resulting from the heterodox programme, could have been financed by the forced savings generated by import controls (Ocampo, 1985). Therefore, a more efficient alternative package would have been one on the lines of the heterodox programme, that would have been able to further reduce the current account deficit without additional reductions of

public expenditure. An alternative actually attempted at the beginning of the heterodox programme was to substantially increase export subsidies and to reinforce export promotion programmes, but at that time fiscal deficit was at its highest and transfers from the coffee sector and/or the importers were not considered viable.

With respect to income distribution and employment, the 'combined' package had also unsatisfactory results as compared with the alternative scenarios, because the dominating effects were those resulting from real devaluation and the urban activity slowdown. Hence, all classes other than capitalists and rural workers tended to lose with respect to the situation that would have prevailed without macroeconomic adjustment. It should be noted, however, that the main redistribution was in favour of the government, through the increase in indirect taxation, and against urban workers and rural rentiers, both affected by the induced contraction of consumption demands.

5. Other effects

As the above packages were under way the economy faced other exogenous shocks and developed new mechanisms of adjustment to recession, at least one of which was a novel event in the post-war Colombian economy. Two of these effects were crucial in the macroeconomic results in 1982-85: a food supply shock and a mark-up reduction.

As discussed in part I, the Colombian economy is highly sensitive to changes in the conditions of supply or demand in the foodstuffs' market. Between 1980 and 1982, a rate of growth of food production of only 0.7 per cent led to annual increases of 3.8 per cent in foodstuffs' relative prices (with respect to urban goods), in spite of the deceleration of urban GDP growth to 1.9 per cent. On the contrary, according to our simulation results, if food supply had kept growing at 3 per cent between 1982 and 1985, food relative

prices would have fallen in all scenarios, even with high rates of growth of urban GDP. What actually occurred during those years was that food prices first fell until mid-1984 and rose abruptly afterwards, with the latter increase overriding the initial fall. Although this pattern may have had dynamic effects altering the final macroeconomic results for the whole period, our model compels us to simplify our analysis to the difference between the actual and the previously assumed food supply for 1985, which was only 2.5 per cent. In spite of the small magnitude of this 'shock', the simulation results show that it had important effects on economic activity and income distribution. In particular, it reduced urban production by 0.2 per cent (Table 4, cols. 10 and 11), and redistributed income from the urban sectors of the economy to peasants and rural rentiers (Table 5, cols. 10 and 11). The net effect was a reduction of the propensity to consume urban goods and thus a global contraction of economic activity, with opposite but rather moderate effects on the current account and the public sector balance.

Most, if not all, economic observers were surprised at the positive results of economic activity, especially in 1984, when the heterodox stabilization programme was being implemented (Coyuntura Económica, April 1985). GDP grew 3.1 per cent and industrial production 8.0 per cent that year. Although less impressive, the results of the following year were also better than expected (2.0 per cent of GDP, and 3.0 per cent for manufacturing activities), in the face of significant food price increases and real wage reductions in all sectors.

The behaviour of urban mark-ups is the major factor behind those favourable results. According to national account statistics, urban mark-ups as proportion of production costs fell continuously between 1980 and 1984, clearly resembling the deviation of urban economic activity on trend (see Figure 3). Available statistics since 1970 reveal that this behaviour was also valid in the seventies,

suggesting that a procyclical variation of global urban mark-ups is a structural element of the Colombian economy. Although the deviation of urban production on trend in recent years was similar to that of the early seventies, mark-ups reached a much lower level in the eighties. This fact seems to be associated with the declining long-term trend in the ratio of investment in non-agricultural machinery and equipment to variable costs in urban activities.[6] Thus, urban mark-ups tend to adjust to investment trends, but limited by the degree of market control, which is enhanced when production approaches capacity limits.

The recent decline of mark-ups is confirmed by the behaviour of the net profit rates at the largest 55 manufacturing firms between 1978 and 1983.[7] However, this source shows a profit pick-up in 1984, which is not apparent in the national accounts statistics. Finally, the behaviour of manufactured-goods prices and its main cost components confirms that mark-ups fell sharply between 1982 and 1984, as cost increases were only partially passed on to final good prices. In 1985, cost increases were transferred almost fully, with mark-ups remaining at approximately the 1984 level.[8] The mark-up reduction in urban activities between 1982 and 1985 can thus be estimated at 21 per cent. Superimposing this change on the scenario with both adjustments and food-supply shock, the assumed mark-up reduction had an expansionary effect large enough to raise total GDP growth by 0.9 per cent and urban productions by 1.7 per cent during the years under study (Table 4, col. 12). As indicated in part II, this change had a dramatic stabilizing effect, which largely explains the relatively good performance of the economy faced with the contractionary effects of the two stabilization packages and an unfavourable food supply shock.

The mark-up reduction redistributed income in favour of all classes other than the capitalists. The expansionary

effect of urban activities exacerbated food price inflation, thus additionally benefitting peasants and rural rentiers and partially offsetting the initial improvement in workers' income shares. However, since urban goods prices tended to decline, total inflation actually diminshed.[9] The mixture of quantity and price effects worsened the current account and the public sector balances. In the first case, the causes were the additional demands for imports, the reduction of exportable surpluses of raw materials and minerals and, only marginally, the loss of competitiveness of food exports. Interestingly enough, part of these unfavourable effects were compensated by an icrease in manufacturing exports, the attractiveness of which increased relative to producing for the domestic market. Meanwhile, the fiscal situation deteriorated, reflecting the relative importance of direct taxation on capitalists' incomes and indirect taxation on manufacturing goods. Therefore, the mark-up reduction produced a situation in which current account behaviour appears misleadingly associated to the budget situation, without any causal link between the two. In these circumstances, an increase in indirect tax coefficients on manufactured goods, as that implemented in 1984 and 1985, restored the fiscal position without producing undesirable effects in terms of inflation and/or income distribution. This was a better alternative than cutting public expenditure at the cost of depressing economic activity, as orthodox analyst recommended.

6. Final macroeconomic and distributional results

The last scenario with both adjustments, mark-up reduction and food supply shock is a fairly good representation of what actually happened in the Colombian economy between 1982 and 1985 (Table 4, cols. 12 and 13). Indeed, all major changes in the pattern of growth of demand and production are adequately captured by these results. However, the simulations were built on the basis that all relative prices other than mineral and foodstuffs would

remain at their 1982 levels. But, as Table 7 shows, some other important relative prices changes took place. Thus, as a result of both external price changes and devaluation, the relative market prices of coffee and raw materials for exports partly recovered from the decline experienced between 1980 and 1982. Although, in the former case, the National Coffee Fund was the main beneficiary, producers also received part of the additional incomes through higher real prices (though only at the end of 1985 - see part IV). In the case of raw materials, the additional export market prices were transferred to producers and export subsidies were simultaneously increased. Besides, due to limited market integration, producers' prices of raw materials for domestic use remained at relative high levels throughout the period. Finally, as we have seen, foodstuffs' relative prices did not fall according to our simulation results, but actually increased between 1982 and 1985.

These relative price changes may help to explain why the actual non-financial external balance was worse than predicted by our simulations, and may also explain some minor changes in the components of demand. However, their main effect was distributional. In order to assess it, we assumed as given all actual production results and observed market prices by sector in 1985. Homogeneous pricing was assumed, except in the raw materials sector. Income distribution by social classes was then estimated by applying the same technological coefficients used in the simulations and the same pattern of distribution of surpluses between peasants, rentiers and capitalists, after deducing indirect taxes previously estimated from exogenous data.

The results of this exercise show that the main effect of all these exogeneous relative price changes was a massive transfer of income from capitalists to rural rentiers and peasants (Table 6, cols. 12 and 13). Raw materials' domestic relative prices were the main driving force in this

transfer, which had already started in 1982, as confirmed by a similar exercise for that year (see col. 4). Peasants and rural rentiers also benefitted from higher internal coffee prices and by the increase in foodstuffs' relative prices. However, this price increases also benefitted capitalists, though in a marginal way, through their share in the processing activities of those goods.

In a nutshell, the final outcome of all these distributional changes was an improvement of all social classes at capitalists' expenses. The information available does not allow us to assert whether this process affected all capitalist groups in the same way. However, Table 8 shows that real income accruing to the self-employed and urban rentiers were stable or increasing, allowing them to keep their income shares (although, per-capita real income of the self-employed did decrease sharply between 1982 and 1985). Thus, it was the group of 'other capitalists' who lost the most from 1982 onwards. This evolution was heavily concentrated in the largest firms, as suggested by the collapse of net profits. However, since shareholding is a minor source of firms' financing, the profit squeeze affected personal incomes only mildly. After a period of improvement during the coffee boom years, urban household income concentration remained unchanged between 1980 and 1983, and deteriorated slightly between 1983 and 1985 (see Table 9).

The major result of the profit squeeze was thus a dramatic increase in the proportion of non-performing loans of the banking system and other types of capital losses (non-performing loans as a proportion of productive assets of the banking system rose from 3 per cent in the early eighties to over 17 per cent by mid-1985 - see Coyuntura Económica, October, 1985). The deterioration of the financial position of the largest manufacturing firms and banks, impaired their ability to obtain credit abroad during the years of foreign exchange shortage. As a result, the

economic activity slowdown not only had very moderate results in terms of the current account equilibrium, as we saw in previous sections, but it also made the capital account more fragile, thus rendering the external adjustment process more difficult and costly.

IV. PROSPECTS AND CHALLENGES OF THE PRIMARY EXPORT BOOMS

In sharp contrast with most Latin American countries, Colombia will enjoy a favourable external environment in the coming years. Having recently recovered its position as a net fuel exporter, it will be negatively affected by oil price declines and by their possible impact on coal prices, but these effects will be largely compensated in 1986 by additional coffee export revenues on account of high external prices. However, substantial financial surpluses will be generated even beyond 1987, both in the coffee and the mining sectors. Thus, policy makers will face the question of how to transfer and use those resources.

1. Balance of payments prospects, 1986-90

Short and medium-term current account prospects will be dominated in the rest of the decade by the evolution of international prices of coffee, oil and coal. The new phase of rising coffee prices has originated in the perspective of sharp reductions of Brazilian 1986/87 harvest, on account of severe droughts in 1985 in the production areas. As the damage will be strictly temporary, under normal circumstances prices will be at pre-bonanza levels by 1987 or 1988. Given existing stocks, average prices can be assumed to remain at an average of US$1.90/lb. in 1986, which implies an increase of 31 per cent with respect to 1985. Although Colombia has the largest stocks, export volumes will only increase around 11 per cent with respect to 1985, due to transportation bottlenecks, and will decline in a similar percentage in the following years.

Since Colombia has recently recovered her position as a net exporter of oil and derivatives, balance of payments results will be directly associated with the behaviour of oil prices. Projections in Table 10 are obtained assuming prices for Colombian oil exports to reach a minimum average

level of US$12 per barrel in 1986, gradually recovering a level of US$18 from 1988 onwards. Oil prices will affect proportionately those of fuel-oil, which is also a major Colombian export, and coal, though in a less severe way, as this commodity was initially underpriced with respect to oil.

In relation to other exports, our projections imply that total real imports of Colombian trading partners will increase at rates between 4 and 5 per cent during the rest of the decade, and their prices in the international markets at 4 per cent. Other items of the current account are projected on the basis of domestic rates of growth between 4 and 5 per cent, assuming that present real exchange rates are maintained and that a moderate import liberalization is introduced in 1986 in a definite way. Finally, it is assumed that world interest rates will stabilize around 8 per cent and that there will be no external credit constraints to finance the moderate current account deficits. In fact, after the years of coffee bonanza, current account deficits will increase but exports will remain substantially above 1985 levels. Net debt/export ratios will be substantially lower than in 1985, and will stay well below 2.0, which may be considered a conservative threshold for credit worthiness. As the amount of net international reserves at the beginning of the projection period represents nearly six months of import, there will be no need for additional borrowing to assure sufficient international liquidity. In short, balance payment prospects show that no external constraints to economic growth should arise during the rest of the decade.

2. Challenges of the coffee bonanza

The coffee bonanza which started in late 1985 poses three different questions to economic policy makers. The first relates to the size of optimal investments in new coffee plantings. The second is associated with short-term

macroeconomic effects of rising coffee incomes. The third has to do with the long-term management of coffee savings. The first two issues will be discussed in this section, while the third will be analyzed in relation to the prospects for 1990.

The first issue raises basic questions in relation to the magnitude of the adjustment in the internal coffee price in the face of rising external quotations and the stabilization functions of the National Coffee Fund. A simple look at Figure 4 will indicate that stabilization functions are imperfect. Real domestic coffee prices follow international prices cycles. Plantings respond to higher prices, inducing an increasing production with some lag. The magnitude of the supply response depends on real domestic prices and on technological characteristics of plantations. Thus, in the second half of the 1970s, technological innovations in new plantations led to a rapid increase in production - from 7.5 million to 13 million coffee bags between the first half of the 1970s and the early 1980s. The supply response was much less noticeable in the 1950s, due to aging of traditional plantations and it will be so in the late 1980s and early 1990s, due to a similar process in modern plantations. This explains why supply response estimates differ considerably depending on the reference period (See Junguito, 1974; Akiyama and Duncan, 1982; Leibovich, 1986).

As a large producer in a slow growing international market, Colombian coffee production is certainly restricted by world demand. Although the country was able to negotiate an increasing quota in the international Coffee Agreement, it ran annual surpluses of 2.5 million 60 Kg. bags, thus accumulating close to one year's production in inventories in the first half of the 1980s. These surpluses were a significant part of world's excess inventories, as for the first time in the twentieth century Brazil did not have an overproduction of coffee. Simulations of future coffee

conditions indicate that, given initial overproduction over 'normal' demands, even small predicted increases in production will be reflected in rising surpluses in the early 1990s (Leibovich, 1986). There is thus a pressumption that new coffee investments induced by rising prices in the current bonanza are socially improductive.

Increasing coffee prices also have a significant short-term macroeconomic effect. Indeed, the magnitude of the domestic monetary and aggregate demand shock depends on internal and not on external prices. The difference between these two variables is reflected in higher retention quotas or ad-valorem taxes, which increases the income of the National Coffee Fund and the central national government, respectively. In both cases, under Colombian exchange controls, this income can be sterilized by investing in foreign exchange certificates or other liabilities of the central bank. Obviously, additional monetary and aggregate demand shocks can be expected if the marginal propensity to spend the additional income by the Fund or the government is positive.

Given the structural features of the Colombian economy analyzed in part I, the demand shock will have an expansionary effect on urban 'Keynesian' activities and an inflationary effect, associated with short-term inelastic food supplies. There is some evidence that higher coffee prices may also have an unfavourable effect on food production, due to the use of additional land and labour in coffee activities or the cost effects of higher land values and rural wages. The inflationary effect thus depends on the 'crowding out' effects on domestic food supplies and on the direct food demand generated by higher domestic coffee incomes; the latter effect is important, given the large share of rural wages and peasants in non-taxed coffee income. According to the experience of the 1970s, the inflationary impact is produced with a lag of six months to one year after the increase of domestic coffee prices (see

Figure 5). Note that this association between coffee prices and inflation is not related to the impact of the money supply on the price level. The process has a monetary dimensions, however, as increases in the money supply are also related to the non-sterilized proportion of coffee earnings. Thus, many authors have built a monetary analysis of the connection between coffee income and inflation (Sarmiento, 1984, ch. II; Edwards, 1984; Cuddington, 1986).

Given the positive association between coffee prices and inflation, economic authorities have two alternative ways to stabilize the price level: they can either restrain increases in domestic coffee prices, or give way to the pressure of the politically powerful coffee growers and adopt a contractionary macroeconomic policy. The latter may include a restrictive fiscal and domestic credit policy, a liberalization of import controls and a revaluation of the exchange rate. In the face of massive increases in domestic coffee prices in 1975 and 1976 (see Figure 4), economic authorities adopted this strategy (Sarmiento, 1978; Ocampo and Reveiz, 1979). The Agreement between the government and the Federation of Coffee Growers in early 1986 includes a smaller increase in domestic coffee prices and a much larger sterilization of coffee incomes, which will allow the government to maintain a less contractionary fiscal and credit policy, stronger import controls and a higher real exchange rate (Palacios, 1986). According to the Agreement, only one third of the surpluses resulting from the bonanza will be transferred to the government, the rest being retained by the coffee sector to finance their own investment programme and to reduce the debt of the National Coffee Fund. Although the initial financial needs of the coffee sector institutions give little room to change this pattern of distribution of surpluses in 1986, in the following year a larger share could be devoted to real investment. Given that most coffee-producing areas exhibit a certain degree of over-investment in infrastructure, new resources should be invested in non-coffee related

activities and areas, which would imply that surpluses should be transferred to the government.

The alternative policy scenarios may have different effects both in the short and medium term. The package of high coffee incomes-cum-compensatory macroeconomic policy has significant short-term effects on income distribution, generates greater pressure on domestic food prices and leads to rising current account and public sector deficits with respect to 1985. The ability to maintain high real coffee incomes in this alternative is very limited, however, as savings of the National Coffee Fund during the boom are minimized. Thus, coffee growers' gains are rapidly eroded, as it actually happened during the previous bonanza (see Figure 4). The initial effect on urban activities may or may not be expansionary, depending on food supply conditions and the mixture of compensatory policies adopted after the initial shock. Changes in food supplies and demands in the downswing may generate an expansionary effect, as in 1978. Macroeconomic policies adopted during the boom years may not be altered, however, after the bonanza is over, and thus the medium-term effects may be contractionary. In the alternative scenario, in which surpluses are kept by coffee sector institutions, gains in coffee incomes are smaller but more stable. Both short and long-term impacts may thus be more expansionary than in the previous scenario, but less than if coffee surpluses are transferred to the government to finance an investment programme. Under this alternative, additional expenditure has a positive demand effect in the short term and favourable effects in the long run, provided new resources are invested in capacity-constrained sectors such as non-coffee agricultural activities.

To analyze the alternatives facing policy makers in the current boom, three scenarios were run with the CGE model used in part III. All scenarios share a common external environment, as discussed in the previous sections. In the basic projection, no further import liberalization measures

to those decreed in February 1986 are implemented (see section II.3) and the current real exchange rate is maintained to protect domestic tradables production and promote medium term export diversification. Fiscal policy is assumed to play no active role in this process. Thus, all government expenditure is assumed to grow at an inertial rate of 3 per cent and no changes are introduced to present tax coefficients. Furthermore, it is assumed that the government will avoid increases in producers' real coffee prices, additional to those already decreed (40 per cent with respect to 1985). This increase, however will estimulate new coffee plantings, which will crowd out food production. New areas in coffee are thus assumed to reduce food plantings and production over a trend growth rate of 3 per cent. This rate is assumed for raw materials. Mineral productions will increase on account of (ex-ante) exports which are assumed to grow 77 per cent in real terms between 1985 and 1987. Finally, urban mark-ups are assumed to behave in line with the estimation presented in section III.5.

This set of circumstances would allow the economy to grow at 5.1 per cent annually between 1985 and 1987, a rate close to historical trends. Urban activities will grow at a very similar rate (5.0 per cent), due to the additional demands generated by larger coffee incomes, to stable food relative prices, and to the long-run effect of 1985 real devaluation on exports. The distribution of income will tilt towards indirect taxes, as the surpluses generated in the coffee sector are considered as such, but will also favour capitalists and, to a lesser extent, peasants, at the expense of all wage earners. The rise of total exports will produce a substantial increase in the non-financial surplus with the rest of the world, although total imports in real terms will grow at a rate of 10 per cent. However, this surplus will be insufficient to cover net-interest payments, and a current account deficit equivalent to 0.7 per cent of GDP will remain. Finally, the simulation results show that the government will produce a net surplus of 0.4 per cent of

GDP, for the first time in the 1980s, and the public sector a superavit equivalent to 2.7 per cent of GDP (see Tables 11 and 12, col. 2).

As it has been already emphasized, the key policy variable for managing the coffee bonanza is the producers' real price. As we saw in the basic simulation, the increase of 40 per cent in this price can be accommodated macroeconomically without any internal or external short-run disequilibria. However, as the experience of the bonanza of mid-1970s shows, a substantially larger increase may produce important inflationary pressures, thus compelling policy makers to direct other policy instruments to counteract them. A plausible situation is thus one in which the additional income of coffee producers is compensated by lower public expenditure and higher imports. Furthermore, as inflationary pressures pile up, a most likely result is a real exchange appreciation, which may be actively reinforced by reducing the crawl in order to encourage imports and reduce cost-push pressures. Following mid-1970s experience, it is not unrealistic to assume a scenario in which producers' real prices are increased another 30 per cent (the peak increase between mid-1975 and late 1976 was 130 per cent), the real exchange rate revalued 20 per cent (as it actually happened in that period) and lower public expenditure and higher imports exactly compensate the additional coffee income.

The major result of this scenario is the complete elimination of the coffee surplus, on account of the higher prices paid to producers. The bonanza is thus entirely privatized. This result in higher household consumption and investment, and in a moderate increase in urban production with respect to the basic projection, at the cost of substantially deteriorating the current account and the government balances. Indeed, the current account deficit rises by 3.2 per cent of GDP and the government balance by 1.8 per cent. Notwithstanding the compensatory measures

adopted to refrain domestic demands, foodstuffs' relative price increase at a rate of 3 per cent yearly.

This scenario will produce substantial changes in income distribution. Peasants and rural rentiers and up better off as a result of higher coffee prices and foodstuffs' shortages. Urban workers and capitalists keep their income shares practically unchanged, as urban production is encouraged and higher agricultural prices are compensated by a relative cheapening of imported goods. The main loser is the public sector, as exchange rate revaluation reduces indirect taxes on imports and coffee exports.

Thus, even aside from the induced unproductive investments in additional plantings, the privatization of coffee surpluses may entail heavy short-term economic costs and may hamper future growth possibilities in a number of ways. On the one hand, the deterioration of external and public sector balances may worsen debt indicators and the future access to capital markets to finance long-term deficits. On the other, higher inflation rates induced by foodstuffs' shortages may in turn lead to contractionary policies and to political and social conflicts, as groups affected try to recover their initial positions. Finally, the exchange rate revaluation may have permanent effects on growth rates, with cumulative consequences in terms of unemployment (Misión de Empleo, 1986).

A final scenario is one in which 50 per cent of coffee surpluses after the initial increase of 40 per cent in the real domestic coffee price are devoted to public investments. For the sake of this simulation, it is assumed that additional investments are carried out by the government and financed at no real cost by the National Coffee Fund. It is also assumed that the average import content of these investments is 25 per cent, approximately that for total capital formation. 'Socializing' the bonanza in this way has much more favourable effects, both on public

and private economic activities. Urban GDP grows at a rate of 6.4 per cent a year, well above recent trends, and the economy as a whole 1 per cent above the alternative scenario where coffee surpluses are entirely privatized. Since no additional measures are foreseen in order to encourage net exports or to increase taxation, both the current account and the public sector balances deteriorate in relation to the basic projection. However, the current account deficit is relatively low by historical patterns and below that of 1985, and the public sector ends up with a surplus equivalent to 1.7 per cent of GDP. Finally, it should be noticed that no important distributional changes results from this scenario, since no important relative price changes takes place. Hence, none of the undesirable consequences of privatizing the bonanza are generated.

3. Prospects for 1990

By 1987 or 1988 external coffee prices will return to pre-bonanza levels, posing a number of economic policy challenges, the character and magnitude of which will depend on the way the present boom is managed. If the current agreement between the coffee growers and the government is implemented without change during the years of high prices, stabilization in the downswing will be less traumatic than if the bonanza is privatized. However, the decision on how to invest the profits from devaluation in the coffee sector will remain, if the present real exchange rate is maintained.

This issue was posed by the real devaluation of 1983-85, even before the bonanza magnified coffee surpluses (Coyuntura Económica, June 1985), and will most likely persist after it. In the past, periods of rapid devaluation have been accompanied by rising coffee taxes. The typical mechanism from the 1930s to 1967 was a differential exchange rate. In 1967 this mechanism was replaced by an ad-valorem export tax. However, this tax was continuously reduced from

20 per cent, when it was originally established, to only 2.5 per cent in 1983.[10] If devaluation profits give rise to high surpluses in the future, as seems likely, a change in policy is warranted, which should include either an increasing ad-valorem export tax or, alternatively, a design of an investment programme by the National Coffee Fund, which should clearly exceed its investment in coffee-related and diversification activities. As a simulation analysis will show, there is ample macroeconomic room for additional investment demands in the future. Beside, as it is widely recognized, real investment in non-energy activities has been very moderate since the mid-1970s, partly explaining the loss in the large coal and oil projects.

Mining activities will also generate rising surpluses by the end of the decade, as international fuel prices recover and investment in the large coal and oil projects gets repaid. Thus similar policy questions will arise for this sector. Although as yet no mechanisms have been designed to transfer these surpluses, they will most likely be needed for further investments in the sector in order to restore oil reserves and develop new mining activities. Therefore, sectorial policies will be needed to perpetuate the coming mining export boom beyond 1990.

A basic macroeconomic scenario for 1990 can be built on these lines to show the relative importance of these surpluses and the scope for additional demands. With respect to the external situation, all the assumptions made in section IV.1 are mainained. On the internal side, the same tendencies assumed for primary productions in the 1987 scenarios are assumed, but adjusting for the lower rate of expected mineral exports and for the new developments in coffee plantings and production, on the basis that internal real prices erode after the bonanza at an annual rate of 10 per cent. It is also assumed that government expenditures and other exogenous demands keep growing at a rate of 3 per cent.

The main result of this scenario is that economic growth substantially decreases with respect to the bonanza years, due to lower real domestic coffee prices, a slow rate of growth of investment demands and the loss of dynamism of total exports resulting from the reintroduction of coffee export quotas and a slower increase in mining exports. In spite of this and the reduction of world coffee prices, the non-financial current transactions balance improves slightly, due to a lower dynamism of imports and the recovery of 1985 mineral external nominal prices by the end of the decade. However, the current account deficit deteriorates on account of an increasing net external debt. However, as we saw in the first part of this section, debt indicators still remain at conservative levels, and the relative size of the current account deficit continues to be moderate. The fiscal surplus persists on account of the large coffee surpluses that remain: 1.7 per cent of GDP. However, even putting them aside, public administration enjoys a favourable position, as its current resources will completely cover its assumed expenditures. Finally, although the rate of growth of food supply is relatively moderate (2.9 per cent), relative food prices tend to decrease. Hence, there are no macroeconomic restrictions to pursue expansionary policies to accelerate growth, which is otherwise insufficient to keep up with an expected rate of growth of the urban labour force of 3.9 per cent.

To assess the viability of expansionary strategies, three alternative scenarios were designed. In the first one, all coffee sector surpluses are used to finance government investments, as in the similar scenario for 1987. Urban production then grows at 4.4 per cent and the whole economy at 3.8 per cent, but the current account deficit widens to the equivalent of 2.2 per cent of current GDP due to additional import demands. To counteract this effect, a real devaluation of 15 per cent is then assumed in the second scenario. Provided this devaluation takes place in a gradual way, starting in 1987, it is slightly expansionary and

substantially reduces the external deficit by 1990, according with our analysis in a previous section. Thus, urban GDP growth is 0.2 per cent higher, and the current account deficit shrinks by 1.2 per cent of current GDP. Furthermore, as we saw above, real devaluation strengthens the fiscal position. Hence, a strategy combining agressive public investment programmes and real devaluation has positive long-term effects, both externally and internally, without damaging the net situation of the public sector. However, two remarks should be made. First, it should be noticed that in the short run this policy mix may be expansionary at the cost of temporarily deteriorating the current account deficit, because domestic demands reacts more rapidly than exports. Of course, this could be avoided by postponing investment programmes until devaluation has proved effective, but this would be inefficient at the end of an external bonanza, when foreign reserves are at their highest and the economy is geared to an acceptable rate of growth. Secondly, this combination of policies is only viable if devaluation is considered as a means, not only to propel exports, but to finance public investment by generating surpluses in the coffee sector. This is done implicitly in our simulation exercises by simultaneously producing a government deficit and a coffee sector surplus, but this would be equivalent to taxing coffee exports instead.

In the second scenario just discussed, the public deficit remains unchanged, but the coffee sector ends up better off in current terms, because it receives a transfer from devaluation, while it is only financing the additional public investments. Hence, a third scenario can be imagined in which only this current transfer is taxed to pay for a new round of public investments. Macroeconomically, the economy is then back to the initial current account deficit, but with a higher public sector surplus and the highest rate of growth of all alternatives considered. Due to the effect of real devaluation on consumption, most of the additional

growth comes from investment.

The major shortcoming of these policy scenarios is that they inevitably tend to redistribute income in favour of capitalists and the government, at the expense of all other classes. Higher urban growth rates and real devaluation will be the forces behind this effect. At the same time, minor redistributions occur between rural rentiers and peasants, on the other hand, and all working classes, on the other, on account of foodstuffs' relative price changes. According to our simulation results, food prices tend to fall in all scenarios at the end of the decade, thus benefitting working classes. However, such a tendency is not likely to be either stable or persistent, unless it reflects real productivity changes that could protect real rural incomes. Since public investments in agriculture and transportation facilities have been falling in recent years, potential distributional conflicts could be deterred by partly directing new investments to those sectors.

FOOTNOTES

1. Income from the drug trade should not be exaggerated, however. During the peak years of that trade, Caballero adn Junguito (1978) estimated that only $500 million entered Colombia on that account - i.e., one-fourth of coffee sales at the time and a minute fraction of gross drug transactions. Though the drug business shifted from marijuana to cocaine in the early eighties, this does not seem to have substantially altered its economic importance for Colombia.

2. The model was developed by Londono (1985). For the purpose of the WIDER project, several modifications were introduced: to differentiate the mining sectors, to define the set of prices for all international transactions, to capture the expansionary effects of import rationing and to assure consistent valuation of all transactions within a SAM framework.

3. Basically exogenous demands, tax rates, productions of the non-urban sectors, producers' prices of raw materials and minerals, external prices and wages.

4. It should be noted, however, that the North Cerrejón coal mining project started to produce and export in 1985, one year ahead of schedule, to alleviate foreign exchange shortages.

5. A relative reduction of 27 per cent was then assumed, according to historical figures.

6. An ordinary least squares regression of urban mark-ups (MK) against urban production deviations around (logarithmic) trend (UPD) and a time trend (T) gives the following results (annual data, 1970-84, t-statistics in parenthesis):

$$MK = \underset{(89.5)}{0.427} + \underset{(5.5)}{0.319}\ UPD - \underset{(-6.8)}{0.0035}T \qquad R^2 = 0.86,\ D.W = 2.26,\ F = 38.3$$

The investment coefficient (CI) has a pronounced time trend, as evidenced by this regression.

$$CI = \underset{(43.7)}{0.652} - \underset{(3.63)}{0.00059}T \qquad R^2 = 50.3,\ D.W = 1.46,\ F = 13.2$$

hence, the mark-up trend may reflect the long-run behaviour of the investment coefficient, although this cannot be tested statistically.

7. Data taken from Chamber of Commerce reports published by Confecámaras and Semana.

8. Taking into account all inter-industry links and assuming wages and imported inputs as the only primary cost components, cost increases in manufactured activities can be estimated as 25.5 per cent in 1982, 23.9 per cent in 1983 and 27.3 per cent in 1984, while consumers' prices of manufactured goods increased only 20.1 per cent, 15.9 per cent and 20.4 per cent in those years. In 1985, costs increased 23.8 per cent and final prices rose 22.0 per cent.

9. According to our simulation results, the implied elasticity of total price inflation with respect to total demand via mark-up reduction was roughly minus one.

10. There has also been throughout an additional 4 per cent tax which is used to finance the programmes of the Departmental Committees of Coffee Growers.

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TABLE 1

SOCIAL INCOME MATRIX, 1980

	Coffee	Raw Materials	Food-stuffs	Minerals	Urban Goods	Govern ment	Total GDP	Direct tax Payment (-) Receipts (+)	Total GDP after direct tax Payment
Distribution of gross production value 1/									
-Rural workers	21.5	12.0	11.3	0.1	0.6	0.0	5.2		4.9
-Urban workers	8.6	9.3	5.4	18.7	35.9	0.0	26.4	-0.6	25.8
-Bureaucrats	0.0	0.0	0.0	0.0	0.0	99.2	7.9	-0.2	7.7
-Peasants	8.0	4.5	8.4	0.0	0.2	0.0	3.0		2.9
-Rural rentiers	5.3	30.2	47.7	0.2	1.6	0.0	14.8	-0.1	14.7
-Capitalists	9.3	34.1	21.2	54.8	41.2	0.0	33.8 2/	- 2.5	31.3
-Indirect taxes	44.0	2.3	1.3	14.4	8.0	0.8	8.9 3/	3.3	12.2
-Intermediate Imports	3.3	8.2	4.0	11.8	12.6	0.0			
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0
Share in :									
-Final demand	6.4	2.1	23.4	2.0	59.0	7.1			
-Total demand	4.7	3.9	14.6	5.0	66.6	5.2			
-Value added at factor cost	4.5	5.4	24.4	4.2	52.9	8.6			

1/ All shares include direct and indirect participation of each cost or income in the total value of gross production by sector

2/ Includes importers trading margins on imports of final goods.

3/ Includes duties on imports of final goods.

SOURCE : Authors' calculations using standard input-output matrix algebra. Basic data from DANE, National Accounts.

TABLE 2

MAJOR MACROECONOMIC INDICATORS, 1980-1985

	1980	1981	1982	1983	1984	1985	1980-1985
Production Growth (%)							
-Total GDP	4.1	2.3	0.9	1.0	3.2	2.0	1.9
-Manufacturing	1.2	-2.6	-1.4	0.5	8.0	3.0	1.4
-Agriculture	2.2	3.2	-1.9	1.8	1.1	1.8	1.2
-Other	6.1	3.9	3.0	1.2	2.2	1.8	2.3
Fiscal Deficit (% of GDP)							
-National government [a]	2.8	3.7	4.5	4.1	4.0	1.4	
-National government, excluding interest payments [a]	2.3	3.0					
-Consolidated public sector, except Coffee Fund	4.6	5.4	7.5	7.6[b]	7.5[b]	5.7[b]	
-Coffee Fund	-1.3	0.9	0.6	0.8			
-Total consolidated	3.3	6.3	8.1	8.0			
Employment (1980=100)							
-Secondary sector	100.0	98.9	99.4	102.6	106.9	109.5	
-Terciary sector	100.0	105.2	109.9	115.0	119.3	124.2	
-Wage laborers	100.0	105.5	107.4	108.4	109.6	112.9[c]	
-Self-employed	100.0	103.8	109.9	119.0	125.9	131.2[c]	
Rate of Unemployment (%)	9.7	8.3	9.1	11.8	13.1	14.0	
Average Real Earnings (1980=100)							
-Private employees	100.0	103.9	106.1	109.6	111.6	112.7[c]	
-Public employees	100.0	103.8	107.9	115.1	119.8	121.7[c]	
-Self-employed	100.0	113.7	114.5	110.4	100.4	103.2[c]	
Inflation (end of year, %)	26.0	26.3	24.0	16.6	18.3	22.5	

a. FEDESARROLLO
b. IMF Memoranda
c. First quarter only

SOURCES: DANE, except when otherwise indicated.

TABLE 3

COLOMBIA : BALANCE OF PAYMENTS, 1980 - 1985

(Million dollars; net balances)

	1980	1981	1982	1983	1984	1985
Current account	104	-1722	-2885	-2826	-2050	-1220
Trade balance 1/	13	-1333	-2076	-1317	- 404	149
Non-financial services and transfers	302	38	- 22	- 591	- 406	- 15
Financial services	-211	- 427	- 787	- 918	-1240	-1354
Capital account 2/	985	2009	2235	1436	944	1850
Direct investment	48	226	330	512	558	728
Long term financing	807	1384	1290	1016	1264	1330
Short term capital	130	399	615	- 92	878	- 208
Other 3/	- 16	55	- 4	- 67	20	- 39
Errors and omissions	162	- 100	- 47	- 266	- 175	- 307
Global balance	1235	242	- 701	-1723	-1261	284

1/ Includes non-monetary gold

2/ Excluding contributions to international organizations.

3/ Contributions to international organizations and counterpart items

SOURCE : Banco de la República

TABLE 4

SIMULATION RESULTS

	1980 (1) annual growth rates vs 1970	1982 without external crisis (2)	1982 basic scenario (with external crisis (3)	1982 actual results (4)	1985 without macro-adjustment (5)	1985 with 30% real devaluation only: short-run (6)	1985 with 30% real devaluation only: long-run (7)	1985 with hetero-dox adjustment (8)	1985 with ortho-dox adjustment (9)	1985 with both adjustments (10)	1985 with both adjustments and food supply shock (11)	1985 with both adjustments, mark-up reduction and food supply shock (12)	1985 actual results (13)
		annual growth sales vs. 1980			annual growth rates with respect to 1982 basic scenario								
Production													
- Total GDP	5.5	2.4	1.7	2.3	3.6	3.1	3.4	2.3	1.9	1.5	1.3	2.2	2.1
Urban GDP	6.0	4.6	2.4	1.9	3.6	2.3	3.1	1.2	0.5	-0.5	-0.7	1.0	1.6
Demand													
- Household consumption	5.5	4.0	2.3	2.2	3.7	2.5	2.9	1.1	1.1	-0.3	-0.4	1.3	0.3
- Government consumption	7.1	4.2	4.2	3.5	3.0	3.0	3.0	2.9	1.5	2.4	2.4	2.4	2.2
- Investment	5.1	6.5	8.9	9.2	3.0	1.3	1.3	-3.3	-1.0	-5.7	-5.7	-5.7	-6.9
- Exports	6.3	1.2	-7.8	-7.1	3.7	5.9	7.0	5.7	6.7	7.2	7.3	6.5	6.7
- Imports	6.6	5.7	5.1	6.2	3.4	0.8	1.3	-6.9	-1.6	-8.8	-8.9	-7.8	-11.1
Foodstuffs' relative prices (with respect to urban goods)	1.0	6.5	7.1	3.8	-4.0	-4.8	-4.4	-4.8	-7.0	-6.0	-4.0	-3.1	1.7
Macroeconomic Balances (% of current GDP)													
- Trade-cum-non financial services balance	0.7	-0.7	-3.9	-3.8	-4.7	-3.8	-3.2	0.1	-2.4	1.4	1.5	0.9	0.0
- Current account balance	0.3	-1.7	-5.3	-5.3	-7.3	-6.9	-6.4	-2.8	-5.8	-1.8	-1.7	-2.3	-3.1
- Government balance	-2.8	-4.4	-4.0	-3.9	-5.6	-4.9	-4.7	-2.5	-3.2	-1.2	-1.2	-1.4	-1.4
- Coffee sector balance	2.2	1.7	0.0	-0.5	0.0	1.3	1.3	0.7	1.4	1.4	1.3	1.4	2.0
- Public sector balance	-0.6	-2.7	-4.0	-3.4	-5.6	-3.6	-3.4	-1.8	-1.8	0.2	0.1	0.0	0.0

TABLE 5

SIMULATION SCENARIOS FOR 1985 : MAJOR ASSUMPTIONS

	Base values in 1982 (as % of GDP) (1)	Without macro adjust-ment (2)	With heterodox adjustment (3)	With orthodox adjustment (4)	With both adjustments (5)
		annual growth rates with respect to 1982 base value			
External transactions					
Coffee exports	3.79	2.0	2.0	2.0	2.0
Imports of final goods for private consumption	2.10	3.0	-13.0	0.0	-13.0
Imports of final goods for government's consumption	0.16	3.0	-13.0	0.0	-13.0
Imports of capital goods for private investment	3.20	3.0	-13.0	0.0	-13.0
Imports of capital goods for government's investment	0.66	3.0	-13.0	-9.7	-13.0
Fixed private investment in domestic goods	3.0	3.0	3.0	3.0	3.0
Domestic public expediture					
Domestic goods for consumption	2.70	3.0	3.7	-2.4	-2.4
Domestic goods for investment	3.85	3.0	5.6	-5.3	-5.3
Public employment	9.11	3.0	3.0	1.5	3.0
Real wages					
Urban private	28.20	0.0	2.0	0.0	2.0
Rural	4.51	0.0	2.0	0.0	2.0
Public	8.46	0.0	0.0	-3.4	0.0
Real Production of fixed-supply sectors					
Food	24.14 [a]	3.0	3.0	3.0	3.0

TABLE 6

INCOME DISTRIBUTION SIMULATION RESULTS

	1980 Base Values	1982 Without external crisis	1982 Basic scenario (with external crisis)	1982 Simulated from actual results	1985 Without macro adjustment	1985 With real devaluation only		1985 With heterodox adjustment	1985 With orthodox adjustment	1985 With both adjustments	1985 With both adjustments and food-supply shock	1985 With both adjustments mark-up reduction and food shock	1985 Simulated from actual results
						Short-run	Long-run						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Shares in current GDP (%)													
Rural workers	5.20	4.23	4.51	4.72	4.63	4.53	4.46	4.79	4.82	4.86	4.75	4.85	4.66
Urban workers	26.39	26.73	28.20	27.66	29.60	27.97	28.11	28.65	28.27	27.71	27.42	29.30	29.47
Bureaucrats	7.88	7.86	8.46	8.38	8.77	8.59	8.45	8.56	7.86	8.68	8.62	8.80	8.42
Peasants	3.03	3.09	2.82	3.21	2.56	2.35	2.35	2.21	2.30	2.08	2.19	2.41	3.51
Rural rentiers	14.81	15.36	14.55	17.35	12.93	12.03	12.08	11.63	11.65	11.04	11.67	12.65	17.39
Capitalists	33.78	34.81	34.37	31.47	34.25	35.91	35.97	34.20	36.37	35.00	34.83	31.32	26.07
Indirect taxes	8.90	7.91	7.08	7.21	7.24	8.61	8.58	9.97	8.91	10.61	10.51	10.65	10.45
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Employment (Indices 1980=100)													
Rural workers	100.0	100.6	99.6	99.6	107.9	107.9	107.9	107.9	107.9	107.9	106.4	106.4	105.0
Urban workers	100.0	106.3	104.3	106.4	115.3	111.3	113.7	108.0	105.9	102.9	102.6	107.4	106.6
Bureaucrats	100.0	108.3	108.3	108.0	118.4	118.4	118.4	118.4	113.3	118.4	118.4	118.4	118.4

TABLE 7

EVOLUTION OF RELATIVE MARKET PRICES BY SECTOR 1/

(1980=100)

	1980	1981	1982	1983	1984	1985
Coffee	100.0	70.3	71.7	60.7	78.8	98.5
Raw materials for export	100.0	94.4	68.1	70.3	82.6	81.6
Raw materials for domestic use	100.0	103.1	106.9	105.3	106.5	107.7
Foodstuffs	100.0	102.6	107.7	105.9	104.6	109.6
Minerals	100.0	85.6	75.8	67.1	73.8	71.9
Urban foods and services	100.0	102.5	101.1	103.3	101.2	99.1
Imported inputs (Cif prices in pesos)	100.0	92.5	83.9	79.8	90.2	102.0

1/ With respect to implicit market prices of total final demand.

e Preliminary estimate.

SOURCE : Authors' estimates based on DANE National Accounts and Banco de la República Wholesale Price Index

TABLE 8

INCOME ESTIMATES FOR SOME CAPITALIST GROUPS

	1980	1981	1982	1983	1984	1985
Real Income Indices :						
Self-employed	100.0	118.6	127.1	134.8	130.2	140.6
(per cápita)	(100.0)	(113.7)	(114.5)	(110.4)	(100.4)	(103.2)
Urban rentiers	100.0	105.0	108.4	107.9	108.3	105.1
Other capitalists	100.0	109.3	94.9	92.5	83.4	75.1
Total	100.0	109.4	100.3	99.2	92.2	86.6
Real Net Profit Indices						
55 largest firms	100.0	89.4	37.8	-1.1	56.6	76.2
10 largest firms	100.0	73.4	-74.6	-179.0	-53.2	-73.7
Incomes Shares (% of GDP)						
Self-employed [a]	3.20	3.62	3.75	3.99	3.80	4.01
Urban rentiers	5.93	5.94	5.93	5.97	5.85	5.56
Other capitalists	24.64	25.66	21.55	21.05	18.71	16.50
Total	33.78	35.22	31.24	30.96	28.36	26.07

SOURCE: Authors' estimates based on DANE National Accounts, DANE Household Surveys, and Chamber of Commerce Reports.

a : Four largest cities. Provisional estimates.

TABLE 9

URBAN HOUSEHOLD INCOME DISTRIBUTION, 1976-1985

(March of each year)

	DECILES				Gini Coefficient
	1 to 5	6 to 8	9	10	
1976	16.9%	27.4%	17.1%	38.6%	0.50
1978	17.9	27.5	16.7	38.0	0.48
1980	18.9	28.5	17.2	35.4	0.46
1983	18.9	28.7	16.9	35.4	0.46
1985	18.6	28.2	17.1	36.1	0.47

SOURCE : Alvaro Reyes, et al., Tendencias del empleo y la distribución del ingreso, Research Report, Misión de Empleo, May 1986.

TABLE 10

BASIC BALANCE OF PAYMENTS PROJECTION 1985-1990

(US million dollars)

	1985	1986	1987	1988	1989	1990
I. Current Account Balance	-1.220	253	- 604	- 593	- 855	- 951
A. Trade Balance	149	1.472	1.035	1.284	1.335	1.272
1. Exports	3.518	5.022	4.965	5.534	5.945	6.222
a. Coffee	1.712	2.748	1.800	1.700	1.768	1.840
b. Oil and derivatives	410	659	1.307	1.752	1.780	1.766
c. Coal	121	189	301	429	555	614
d. Other	1.275	1.426	1.557	1.653	1.842	2.002
2. Non-monetary gold	365	450	350	350	350	350
3. Imports	3.734	4.000	4.280	4.600	4.960	5.300
a. Fuels	459	124	114	120	142	178
b. Other	3.275	3.876	4.166	4.480	4.818	5.122
B. Non-financial Services and Transfers (net)	- 15	168	- 40	- 128	- 313	- 350
C. Financial Services (net) 1/	-1.354	-1.387	-1.599	-1.749	-1.877	-1.873
II. Net Debt 2/	10.518	9.586	9.705	9.998	10.553	11.204
III. Net Debt/Export Ratio 3/	2.71	1.75	1.83	1.70	1.68	1.64

1/ Includes net interest and royalty payments

2/ External debt-gross international reserves in 1985. All other years : Initial net debt - Current account balance - Direct investment

3/ Total exports include non-monetary gold

SOURCE : Author's estimates based on Banco de la República, Balance of Payments and FEDESARROLLO, Coyuntura Económica.

TABLE 11

MACROECONOMIC SIMULATION RESULTS FOR 1987 AND 1990

	1985 (1) Annual growth rates with respect to 1982 (as simulated in Table 4, column 12)	1987 basic projection (2)	1987 privatizing bonanza (3)	1987 socializing bonanza (4)	1990 basic projection (5)	1990 socializing coffee surpluses (6)	1990 socializing coffee surplus plus devaluation (7)	1990 socializing surplus plus devaluation rents (8)
		Annual growth rates with respect to 1985 (1)			Annual growth rates with respect to 1987 (2)			
Production								
-Total GDP	2.2	5.1	4.8	5.8	3.2	3.8	3.9	4.1
-Urban GDP	1.0	5.0	5.2	6.4	3.2	4.4	4.6	5.2
Demand								
-Household consumption	1.3	4.5	5.8	5.3	2.8	3.4	3.1	3.4
-Government consumption	2.4	3.0	-0.7	3.0	3.0	3.0	3.0	3.0
-Investment	-5.7	5.8	7.8	9.3	3.8	6.9	6.0	7.4
-Exports	6.5	13.2	9.5	12.7	4.7	4.3	5.8	5.0
-Imports	-7.8	10.0	13.5	12.2	3.7	5.5	4.8	5.5
Foodstuffs' relative prices (with respect to urban goods)	-3.1	0.5	3.0	1.7	-3.7	-2.9	-2.7	-2.4
	Percentages of current gross domestic product							
Macroeconomic Balances								
-Trade-cum-non financial services balance	0.9	2.1	-0.0	1.5	2.4	1.5	3.1	2.6
-Current account balance	-2.3	-0.7	-2.5	-1.4	-1.4	- 2.2	-1.0	-1.4
-Government balance	-1.4	0.4	-1.4	-0.6	0.1	-1.2	-0.5	-0.4
-Coffee sector balance	1.4	2.3	-0.3	2.3	1.7	1.6	2.3	1.6

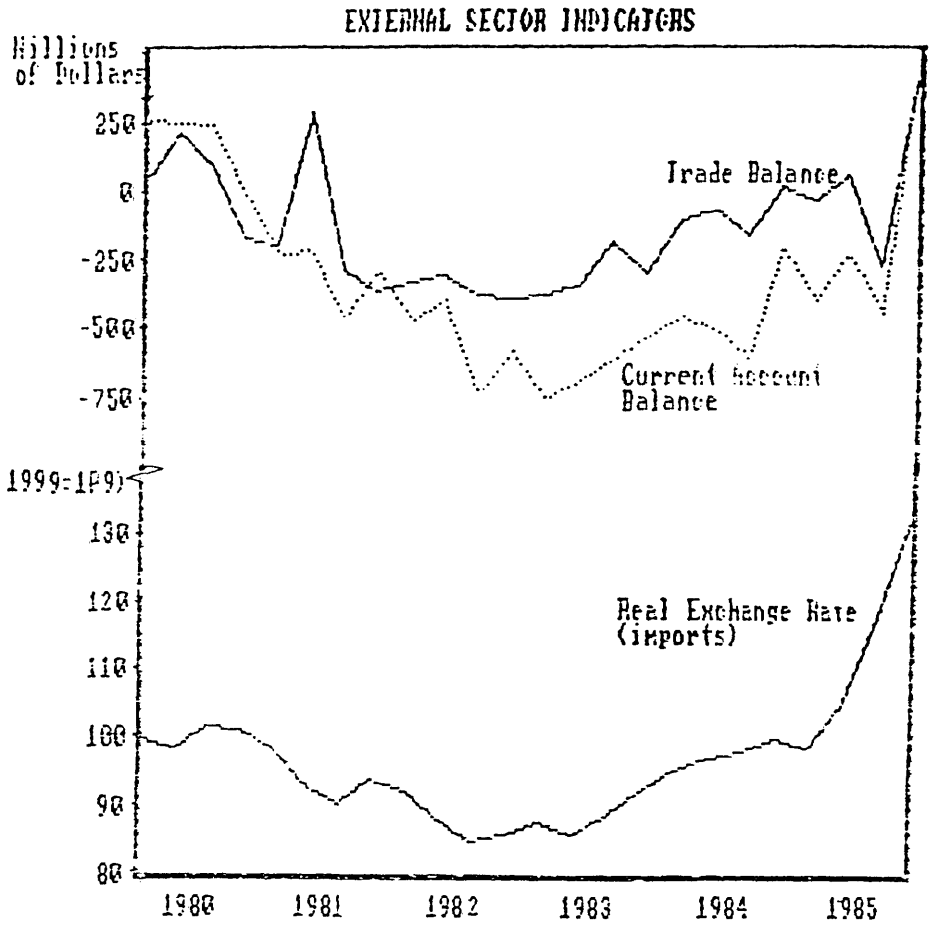
TABLE 12

INCOME DISTRIBUTION SIMULATED RESULTS FOR 1987 AND 1990

	1985 (1) As sikulated in Table 4, column 12	1987 basic projection (2)	1987 privatizing bonanza (3)	1987 socializing bonanza (4)	1990 basic projection (5)	1990 socializing coffee surpluses (6)	1990 socializing surplus plus devaluation (7)	1990 socializing surplus plus devaluation (8)
Shares in current GDP (%)								
Rural workers	4.85	4.34	4.56	4.32	4.43	4.32	4.15	4.11
Urban workers	29.30	28.32	29.59	28.49	29.15	29.36	28.37	28.47
Bureaucrats	8.80	8.19	7.91	8.03	8.30	8.09	7.79	7.70
Peasants	2.41	3.01	3.95	2.90	1.97	1.98	1.87	1.88
Rural rentiers	12.65	12.36	14.21	12.40	10.25	10.34	9.91	9.95
Capitalists	31.32	32.54	31.22	32.61	34.32	34.37	35.71	35.72
Indirect taxes	10.65	11.27	8.56	11.25	11.57	11.54	12.03	12.17
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Employment (Indices 1985=100)								
Rural workers	100.0	103.3	103.3	103.3	112.1	112.1	112.1	112.1
Urban workers	100.0	114.3	114.6	117.2	126.8	131.0	131.6	130.9
Bureaucrats	100.0	106.1	106.1	106.1	115.9	115.9	115.9	115.9

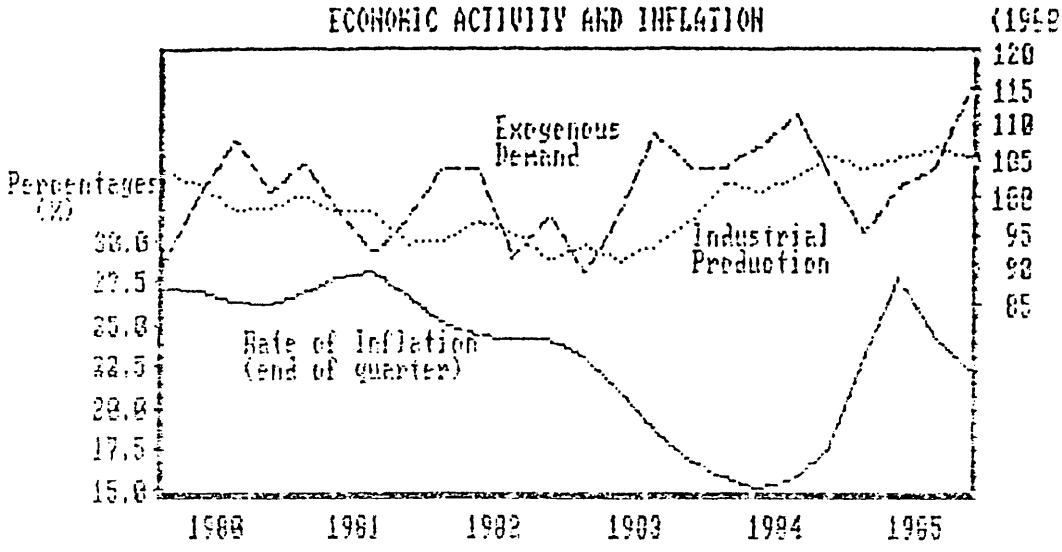
SOURCE : Authors' estimates.

FIGURE 1



Source : DANE and FEDESARROLLO

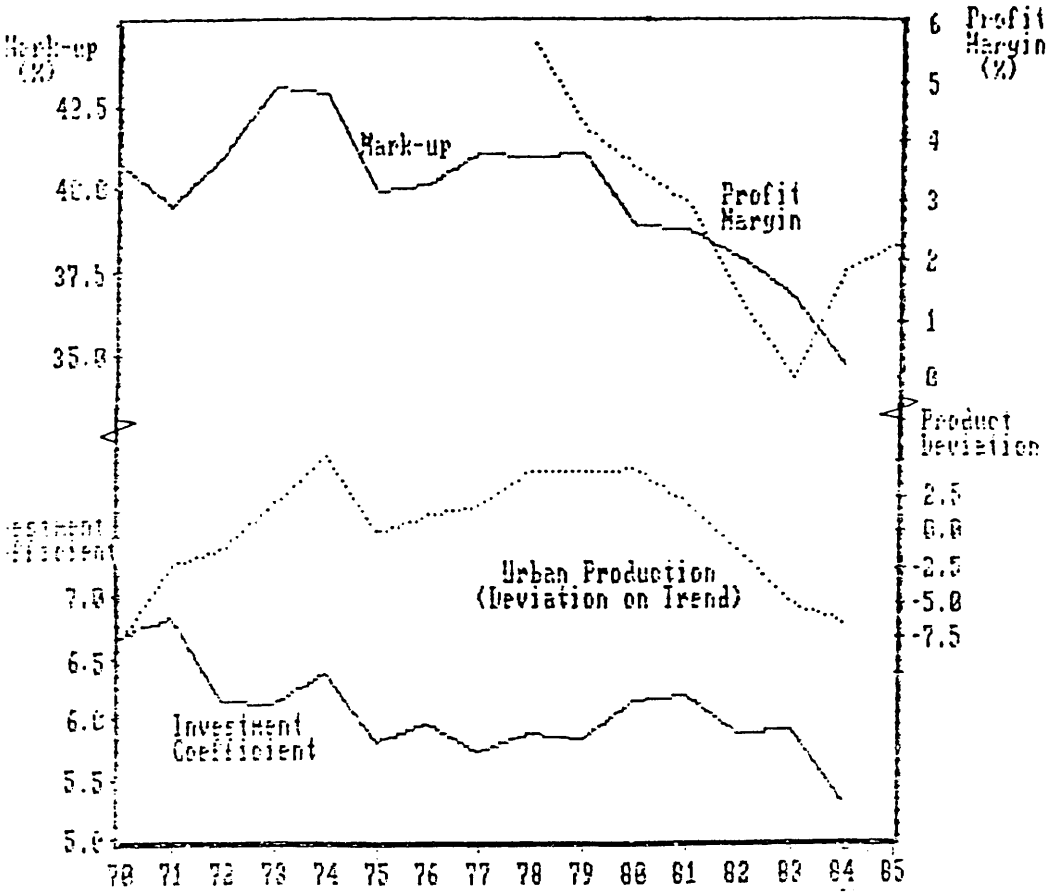
FIGURE 2



Source : FEDESARROLLO and DANE

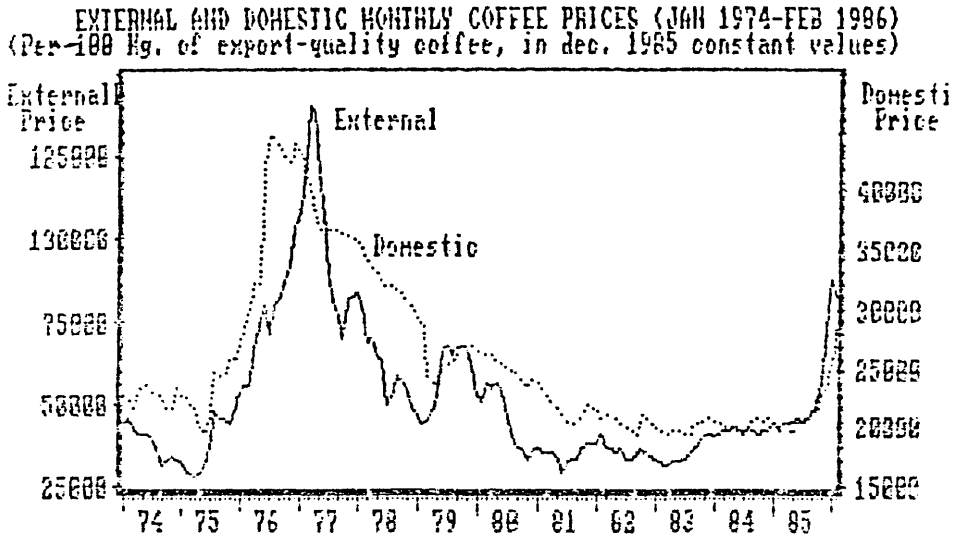
FIGURE 3

URBAN MARK-UP, PRODUCTION AND INVESTMENT



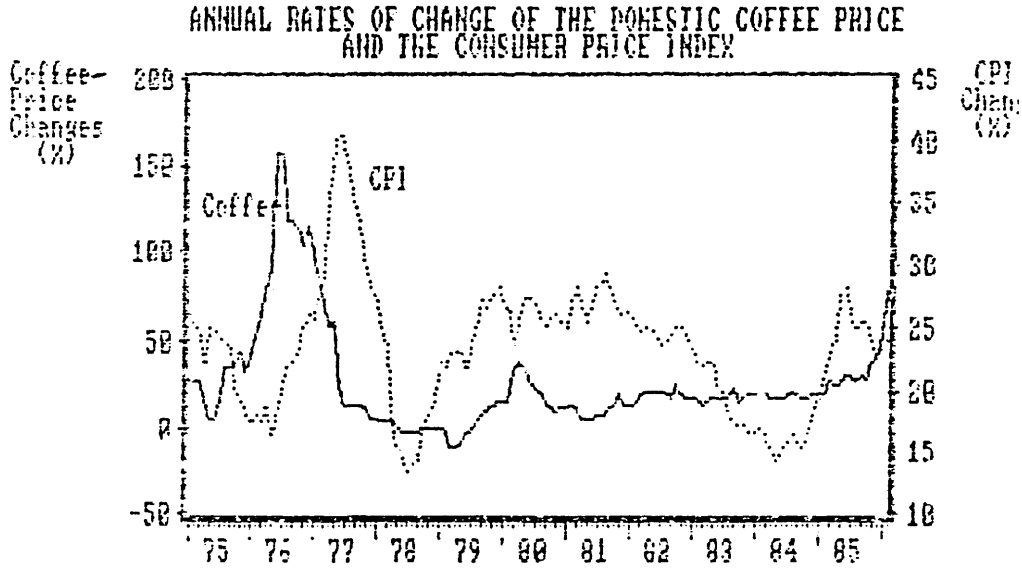
SOURCE : Authors' calculations based on DANE National Accounts Statistics and CONFECAMARAS.
Mark-up : Gross profit/Direct total costs.
Investment Coefficient : Investment in non-agricultural machinery and equipment/ Direct Total Costs

FIGURE 4



SOURCES: National Coffee Growers Federation and DANE

FIGURE 5



SOURCES: DANE, Consumer Price Indices, and National Coffee Growers Feder